REMEDIAL INVESTIGATION

VOLUME 1 OF 2
WORK ASSIGNMENT D004433-22B

FORMER SPIC AND SPAN CLEANERS AND DYERS SITE **SITE NO. 2-24-129**
GREENPOINT/EAST WILLIAMSBURG INDUSTRIAL AREA **KINGS (C), NY**

Prepared for:
NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
625 Broadway, Albany, New York

Joseph Martens, Commissioner

DIVISION OF ENVIRONMENTAL REMEDIATION
REMEDIAL BUREAU B

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July 2011

PHASE 1 REMEDIAL INVESTIGATION

FOR THE

FORMER SPIC AND SPAN CLEANERS & DYERS, INC. SITE

SITE ID NO. 2-24-129

BROOKLYN, KINGS COUNTY, NEW YORK

PREPARED FOR:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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LIST OF ACRONYMS AND ABBREVIATIONS

AARCO	AARCO Environmental Services, Corporation
aka	also known as
amsl	above mean sea level
ASP	Analytical Services Protocol
bgs	below ground surface
BQE	Brooklyn-Queens Expressway
C&D	construction and demolition
CD	compact disc
COC	chain-of-custody
Con Edison	Consolidated Edison Company of New York
DCA	dichloroethane
DCE	dichloroethene, aka dichloroethylene
DEP	Department of Environmental Protection
DNAPL	dense non-aqueous phase liquid
DOB	Department of Buildings
DOT	Department of Transportation
DSNY	City of New York Department of Sanitation
DUSR	Data Usability Summary Report
EDR	Environmental Data Resources, Inc.
ELAP	Environmental Laboratory Approval Program
EM	electromagnetic
ExxonMobil	ExxonMobil Brooklyn Terminal
FAP	Field Activities Plan
FDNY	New York City Fire Department
FOIL	Freedom of Information Law
FSP	Field Sampling Plan
GPR	ground penetrating radar
H2M	H2M Labs, Inc.
HDPE	high-density polyethylene
ID	inside diameter
IDW	investigation derived wastes
L	liter
LNAPL	light non-aqueous phase liquid
META	META Environmental, Inc.
mg/kg	milligrams per kilogram (parts per million)
MIP	membrane interface probe
mL	milliliter
MW	monitoring well
NAPL	non-aqueous phase liquid
NAVD	North American Vertical Datum
NYC	New York City
NYCRR	New York Codes, Rules and Regulations
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOT	New York State Department of Transportation

LIST OF ACRONYMS AND ABBREVIATIONS
(Continued)

OD	outside diameter
PCBs	polychlorinated biphenyls
PCE	perchloroethene, aka tetrachloroethene or tetrachloroethylene or perchloroethylene
PID	photoionization detector
ppbv	parts per billion by volume
ppm	parts per million
PVC	polyvinyl chloride
QA/QC	quality assurance/quality control
QAPP	Quality Assurance Project Plan
QC	quality control
RI	Remedial Investigation
Roux	Roux Associates, Inc.
RQD	rock quality designation
RSI	Radar Solutions International
SAP	Sampling and Analysis Plan
SPDES	Spill Discharge Elimination System
Spic and Span	Former Spic and Span Cleaners & Dyers, Inc.
TAGM	Technical and Administrative Guidance Memorandums
TAL	Target Analyte List
TCE	trichloroethene, aka trichloroethylene
TCL	target compound list
TICs	tentatively identified compounds
TOGS	Technical and Operational Guidance Series
µg/kg	micrograms per kilogram (parts per billion)
µg/L	micrograms per liter (parts per billion)
$\mu g/m^3$	micrograms per cubic meter
URS	URS Corporation
USEPA	United States Environmental Protection Agency
VOCs	volatile organic compounds
WA	Work Assignment
Zebra	Zebra Environmental Corporation

1.0 INTRODUCTION

This Remedial Investigation (RI) Report has been prepared to summarize the field activities and analytical results from the RI Phase I field investigation at the Former Spic and Span Cleaners & Dyers, Inc. (Spic and Span) Site (NYSDEC Site Number 2-24-129) in the Greenpoint/East Williamsburg Industrial Area section of Brooklyn, New York. The work for this site was issued to URS Corporation (URS) as Work Assignment No. C007540-2. This report presents data and information gathered prior to and during the RI Phase I field investigation, which was conducted from January 24 through March 25, 2011.

1.1 Site Background

The Spic and Span Site is located in the Greenpoint/East Williamsburg Industrial Area section of the Borough of Brooklyn, New York (Figure 1-1). The Spic and Span Site is located within the Meeker Avenue Plume Trackdown Site (NYSDEC Site Number 2-24-121) investigation area. During the five phases of investigation at the Meeker Avenue Plume Trackdown Site conducted between May 2007 and July 2009, a source of groundwater contamination was identified at the buildings housing the Former Spic and Span Cleaners and Dyers, Inc. [a.k.a. Eastern District Dye Works (1916 Sanborn) and Norman Cleaners and Dyers Inc. (1942 Sanborn)], located at 260 Norman Avenue/315-325 Kingsland Avenue (Tax District of Brooklyn, Block 02657, Lot 0009) and 307-313 Kingsland Avenue (Tax District of Brooklyn, Block 02657, Lot 0015). In January 2009, the above mentioned source of groundwater contamination was listed as NYSDEC Class 2 Inactive Hazardous Waste Disposal Site (Site Number 2-24-129). Geographical site and background information is provided in the following sections.

1.1.1 Site Location and Description

The area is a mixture of residential and manufacturing, including both commercial and industrial facilities. The Spic and Span property is currently being used by an import business. The entire site property and the majority of the project area are covered by one-story and multi-story buildings and/or pavement/concrete. Residential areas are generally south of the site, although residents live on the Spic and Span property. The Spic and Span Site is located in a region of historic petroleum refining and storage operations that occupied a significant portion of the Greenpoint area (Figure 1-2). By 1870 over 50 refineries were located along the banks of Newtown Creek located

northeast of the Site. Currently, bulk oil storage terminals exist north of the site, including the BP Terminal and the ExxonMobil Brooklyn Terminal (ExxonMobil). The former Paragon Oil facility was located east of the site along Newtown Creek, north of Bridgewater Street, between Meeker Avenue and Apollo Street. Peerless Importers, Inc. is currently located on a portion of the former Paragon Oil facility along Newtown Creek.

In September 1978, the United States Coast Guard noted the signs of an oil spill entering Newtown Creek from the northeastern end of Meeker Avenue. A subsequent investigation concluded that the area of the spill under the Greenpoint/East Williamsburg Industrial Area was in excess of 52 acres and the total spill volume, as estimated in 1979, was approximately 17 million gallons of petroleum products as documented by Roux Associates, Inc. (Roux) (Roux, October 14, 2005). The current BP property was determined to be the source of a petroleum free product plume east of the Spic and Span Site. Investigation and remediation activities were conducted by Roux on behalf of ExxonMobil from 1990 to the present and further defining the extent of the plume. The plume area consists of the area underlain by the petroleum-free product plume that is not on the BP Terminal or the Peerless Importers, Inc. properties, and is east of Morgan Avenue. Currently, the extent of the plume area is less than what it was in 1990 due to the operation of a product recovery system which has recovered over 5,600,000 gallons since it became operational in 1995 (Roux, October 29, 2010). The impact of the product recovery system on the Spic and Span Site will be detailed in Section 3.10 in the next report submittal.

1.1.2 Summary of Records Search

Based on the results of several investigations conducted in the area (see Section 1.2 for more details), chlorinated solvents such as tetrachloroethene (PCE) and trichloroethene (TCE) were found in soil vapor, soil, and groundwater in areas outside the historic petroleum spill. As these chemicals are not related to petroleum, the NYSDEC initiated the Meeker Avenue Plume Trackdown Site investigation in order to determine the source(s) of this contamination. Information was gathered relevant to the Spic and Span Site and other nearby potential contamination sources as part of these previous investigations.

1.2 Findings of Previous Investigations and Phases of Site Investigation Fieldwork

1.2.1 Previous Investigations by Roux

Roux Associates – September 2005

In September 2005, Roux Associates, on behalf of ExxonMobil, sampled soil vapor at 23 temporary locations in and around the perimeter of the plume area (Roux, October 14, 2005). The soil vapor samples collected in September 2005 indicated the presence of PCE at 7,050 micrograms per cubic meter ($\mu g/m^3$) at the monitoring point on the western side of Morgan Avenue between Nassau and Norman Avenues. Much lower concentrations of PCE were detected throughout the remainder of and around the perimeter of the plume area. In addition, TCE was detected at 4,500 $\mu g/m^3$ at the monitoring point located on the western side of Apollo Street between Nassau Avenue and Meeker Avenue, and at 151,000 $\mu g/m^3$ at the monitoring point on the western side of Morgan Avenue between Nassau and Norman Avenues. Much lower concentrations of TCE were detected throughout the remainder of and around the perimeter of the plume area. It was determined that the chlorinated solvents detected (i.e., PCE and TCE) were from a different source than the petroleum-free product plume.

Roux Associates – September 2006

Between June and September 2006, Roux Associates performed an additional soil vapor investigation in and around the perimeter of the Off-Site Plume area (Roux, November 10, 2006). A total of 50 permanent soil vapor monitoring points were installed. This included 20 nested monitoring points (one shallow and one deep) in the commercial/industrial area and 10 deep monitoring points in the residential area. Elevated concentrations of PCE were detected at 1,300 $\mu g/m^3$ at the monitoring point located at the northwestern corner of the intersection of Morgan and Nassau Avenues. Elevated concentrations of TCE were detected at 8,200 $\mu g/m^3$ at the monitoring point on the eastern side of Apollo Street between Bridgewater Street and Nassau Avenue, and at 700 $\mu g/m^3$ at the monitoring point on the northwestern corner of the intersection of Morgan and Nassau Avenues.

1.2.2 Previous Investigations by URS

To date, URS has conducted five phases of site investigation fieldwork at the Meeker Avenue Plume Trackdown Site. Only data gathered during the Phase I, II, III and V field activities are relevant

to the Spic and Span Site. The Phase IV field activities were focused in an area southeast of the Spic and Span Site. Sample locations and PCE/TCE results from these investigations relevant to the Spic and Span Site are shown on Figure 1-3 for soil-gas, Figure 1-4 for groundwater, and Figure 1-5 for soil.

1.2.2.1 Summary of Phase I Findings

The Phase I field investigation was conducted from May 7 through July 10, 2007. The field activities of Phase I were primarily focused on locations that were identified as potential historic users of PCE and/or TCE during the historical information review. A complete description of the field investigation and results may be found in the Phase I Data Summary Report (URS, October 2007).

Based upon the results of the Phase I field investigation, the following conclusions were made:

- Soil gas samples indicated that PCE and TCE have impacted soil gas quality. Elevated soil gas concentrations appear to be identified near locations that potentially have used PCE and TCE.
- Groundwater samples indicated that groundwater has been impacted above NYSDEC TOGS 1.1.1 Class GA groundwater standards for both PCE and TCE. Elevated groundwater concentrations appear to be identified near locations that potentially have used PCE and TCE.

1.2.2.2 Summary of Phase II Findings

The Phase II field investigation was conducted from November 5 through December 27, 2007. The field activities of Phase II were primarily focused on investigating and delineating the extent of impacted soil gas, soil and/or groundwater at locations where elevated concentrations of PCE and/or TCE were encountered during the Phase I field investigation. A complete description of the field investigation and results may be found in the Phase II Data Summary Report (URS, April 2008).

Based upon the results of the Phase II field investigation, the following conclusions were made:

- There appear to be areas of elevated soil gas concentrations.

- There appear to be potential source areas where dissolved phase chlorinated solvents have adversely impacted shallow groundwater.

1.2.2.3 Summary of Phase III Findings

The Phase III field investigation was conducted from May 5 through July 24, 2008. The purpose of the Phase III fieldwork was to fill any data gaps identified during Phase II concerning the horizontal extent of impacted soil gas at three of the areas identified; determine if impacted soils existed at one potential source area; determine the horizontal extent of impacted shallow groundwater at the potential sources; and to assess the vertical extent of impacted groundwater at each of the potential sources. Activities included submitting Freedom of Information Law (FOIL) requests to the New York City (NYC) Fire Department (FDNY), NYC Department of Buildings (DOB) and the NYC Department of Environmental Protection (DEP) for records on potential sources. A complete description of the field investigation and results may be found in the Phase III Data Summary Report (URS, October 2008).

Based upon the results of the three phases of the field investigation, the following conclusions were made:

- The areas of elevated soil gas concentrations identified during Phase II field investigation were further delineated during Phase III.

- A dense non-aqueous phase liquid (DNAPL) containing 700,000 milligrams per kilogram (mg/kg) (i.e., 70%) PCE was identified in monitoring well DEC-024D.
- The results from groundwater samples collected during Phase II and from information obtained during the three Phases of the investigation have identified the former Spic and Span Site as a source of groundwater contamination.

1.2.2.4 Summary of Phase V Investigation Findings

The Phase V field investigation was conducted from June 15 through July 13, 2009. The purpose of the Phase V fieldwork was to assist in determining: the horizontal extent of the dissolved phase plume originating from near the Site and DEC-024/024D; if there are additional potential sources of PCE and TCE impacting shallow groundwater north of the Site; the horizontal extent of

impacted deep groundwater; and the depth and areal extent of any DNAPL and the clayey silt unit. Using data obtained during Phases I, II, III, and V, the following conclusions were provided in the Phase V Report.

- In the area north of Meeker Avenue, soil has been impacted by chlorinated solvents and petroleum related compounds. DNAPL containing 73% PCE was identified in the adjacent well DEC-024D at a depth similar to the depth of the soil sample from DEC-024DR. Because the soil sample was collected below the water table in a zone with decreasing permeability, the impacted soil in the vicinity of DEC-024DR may be the result of lateral spreading of DNAPL. The horizontal extent of PCE impacted soil was not determined since PCE was found in only one location at significant concentrations. LNAPL was found in DEC-034 and DEC-054. Petroleum related compounds had impacted soil at DEC-034, DEC-053, and DEC-054.

- Groundwater north of Meeker Avenue has been impacted by dissolved phase chlorinated solvents. The area in the immediate vicinity of near DEC-024/DEC-024D/DEC-024DR was identified as a source of PCE and TCE in shallow groundwater based on the presence of DNAPL in DEC-024DR.

1.3 Objectives of the RI

The objective of the RI is to define the horizontal and vertical extent of contamination related to the Spic and Span Site in soil, overburden groundwater, and soil vapor. The results of this investigation, together with data from previous investigations and additional investigations to be conducted as part of a future area-wide site characterization, will be used to develop remedial action objectives and support the selection of an appropriate remedial action to address contamination related to the Site. While installing DEC-025 as part of the Phase 1 RI, another potential source of chlorinated solvents was identified adjacent to 300 Kingsland Avenue. Additional soil borings were advanced in the vicinity of 300 Kingsland Avenue in an attempt to delineate the horizontal and vertical extent of apparent VOC contamination detected at a separate, as yet unknown, source around

DEC-025 near 300 Kingsland Avenue. The full horizontal and vertical extent of contamination has yet to be determined.

1.4 Report Organization

This report has eight sections. Section 1 includes background information and a synopsis of URS' activities at this site. Section 2 includes a description of field activities that occurred during the Remedial Investigation fieldwork. Section 3 includes a description of the local and regional geology and hydrogeology. Section 4 discusses the nature and extent of the contamination. Section 5 presents a conceptual model and discusses contaminant fate and transport. Recommendations for the Site Characterization Phase of the project are provided as Section 7.0 in this submittal. The Qualitative Human Health Exposure Assessment and Fish and Wildlife Impact Assessment will be provided in Section 6 during Phase 2 of the RI. Section 7.0 presents a summary and recommendations for the next phase of the project. Section 8 contains a list of references cited. Tables, Figures, and Appendices immediately follow the text.

2.0 REMEDIAL INVESTIGATION FIELD ACTIVITIES

Field activities performed during the remedial investigation from January 24 through March 25, 2011 are discussed below. Monitoring well and soil boring locations are shown on Plate 1; soil gas points are shown on Plate 2.

2.1 Utility Clearance

Prior to site work, each subcontractor arranged for all appropriate utility clearance mark-outs. This included (but was not limited to) contacting the NYC Departments of Environmental Protection and Transportation, the Transit Authority, Consolidated Edison Company of New York (Con Edison), Keyspan, and Verizon, in addition to using the Dig-Safely number for New York City – 811 or (800) 272-4480. In addition, URS coordinated with Con Edison for the installation of protective jackets on overhead wires near proposed boring locations. The jackets were installed by Con Edison between January 17 and 21, 2011. Photographs of jacketed overhead wires are included in Appendix A.

2.2 Geophysical Survey for Utility Markouts

On January 24, 2011, Radar Solutions International (RSI) mobilized a one person crew with ground penetrating radar (GPR) and electromagnetic (EM) induction equipment to the site. The purpose of the geophysical survey was to screen for and identify the presence/location of underground utilities in areas where monitoring well installations was proposed.

A 10-foot square reference grid was established around each monitoring well location prior to collecting the geophysical data. A GSSI SIR-2000 digital radar system was used to perform the GPR survey. GPR data were acquired along lines spaced 1.0 to 2.5 feet apart. The EM induction equipment used to determine the location of buried utilities were a Ditch Witch 950 RT locating system and a McLaughlin's Verifier G2 digital locator.

RSI marked utilities and anomalies by spray-painting the outline on the pavement as soon as they were located. A photograph of a completed RSI utility mark out can be found in Appendix A. A URS geologist supervised and assisted RSI. Copies of the daily field notes are provided in Appendix B. RSI's report is provided in Appendix C.

2.3 Soil Vapor Implant Installation

Prior to any intrusive activities, the subcontractor obtained all necessary permits (i.e., NYC DOT street opening permits) for conducting intrusive activities. Fourteen permanent soil vapor implants (SG-064 through SG-077) were installed on February 15 and 16, 2011 by Zebra Environmental Corp. (Zebra) under the direction of a NYSDEC representative and a URS geologist. Locations of the soil vapor implants are shown on Plate 2. All locations were installed through sidewalks. Rotary concrete drill bits were used to drill through the concrete sidewalk. A track-mounted Geoprobe® 6620 DT hydraulic push unit was utilized to advance a 2-inch outside diameter (OD) by 4-foot long acetate-lined Macrocore sampler to a maximum depth of 8 feet below ground surface (bgs). Select locations along Kingsland Avenue were installed to a maximum depth of 2.0 feet bgs (i.e., SG-067, -070, -071, -073, and -074). These locations were installed at this depth above a clayey silt layer which is found along Kingsland Avenue.

Each sample core was screened with a photoionization detector (PID). Up to one soil sample was collected from each boring from the interval exhibiting odors, staining, or the highest PID reading. If no odors, staining, or elevated PID readings were encountered, then a sample from the bottom of the boring was collected.

A 6-inch long double woven stainless steel Geoprobe® vapor sampling implant was connected to an anchor and positioned above the silty clay layer (if present) or at the bottom of the probe hole. Polyethylene tubing ($^{3}/_{8}$-inch OD) was connected to the implant and was cut above the ground surface. The annular space around the implant (screen) was backfilled with #1 silica sand to 6 inches above the implant. A bentonite slurry was placed immediately above the sand for the seal, and extended to the ground surface. The implants were completed with 3-inch diameter aluminum flush-mount protective casings, secured with approximately 1 foot of concrete. Each flush mount casing cover was secured with a $^{9}/_{16}$-inch bolt.

All downhole equipment was decontaminated with a non-phosphate detergent and potable water between each soil vapor implant location. A photograph of a sampling implant and a completed soil vapor implant location can be found in Appendix A. Copies of the daily field notes are provided in Appendix B. Soil boring logs are provided in Appendix D and soil vapor implant construction logs are provided in Appendix E.

For the soil samples collected during installation of the soil vapor implants, a chain-of-custody (COC) form was maintained and accompanied the soil sample containers to H2M Labs, Inc. (H2M) of Melville, NY, a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) accredited laboratory. The soil samples were analyzed for target compound list (TCL) volatile organic compounds (VOCs) listed in Table 2-2, plus tentatively identified compounds (TICs), following United States Environmental Protection Agency (USEPA) SW846 Method 8260B.

All investigation derived wastes (IDW) generated from the soil vapor implant installation was containerized in DOT approved 55-gallon drums and picked up by AARCO Environmental Services, Corporation (AARCO) on a daily basis for off-site disposal at a permitted facility. IDW forms are provided in Appendix K.

2.4 Soil Vapor Sampling

Between February 23 and 24, 2011, soil vapor samples were collected from 19 existing and newly installed soil vapor implants (SG-004, -005, -007, -008, -014, -050, -051, -065 through -067, and -069 through -077) plus quality assurance/quality control (QA/QC) samples. Soil gas samples were unable to be collected from 7 soil vapor implants (SG-024, -025, -027, -052, -053, -064, -068) due to the presence of tight cohesive soils and/or the water table within the screened zone. Sampling locations are shown on Plate 2.

The soil vapor samples were collected in accordance with the procedures outlined in the Field Activities Plan (FAP) (URS, April 2010) using laboratory evacuated 6-liter Summa® canisters with 1 hour flow regulators (i.e., calibrated at the flow rate of approximately 0.08 L per minute) provided by Air Toxics, Ltd. of Folsom, CA (Air Toxics). Per NYSDOH's *Guidance for Evaluating Soil Vapor Intrusion in the State of New York* (October 2006), a helium tracer gas was utilized during the sampling of each soil vapor implant. The tracer gas was used to verify that the infiltration of outdoor (ambient) air was not occurring during sample collection. A one-quart enclosure was placed over the well head. The well tubing was run through an outlet and plumber's putty was used to seal the interface between the tubing and the enclosure. The enclosure was then sealed at the ground surface with a polyurethane foam gasket. A tank containing ultra-high purity helium (99.999%) was connected to the side port of the enclosure and enough helium was released to displace any ambient air

and to maintain a positive pressure within the enclosure. Following the application of the tracer gas, one to three volumes were purged from the soil vapor implant using a Gilian GilAir-3 air sample pump.

A Dielectric MGD-2002 helium detector was used to check for the presence of the tracer gas in the purged soil vapor; if less that 10% of the tracer gas was detected, a sample was collected. Following the collection of the soil vapor sample, the helium detector was re-connected to the tubing to check for the presence of the tracer gas in the soil vapor; if less than 10% of the tracer gas was detected, the sample was acceptable for analyses. No elevated concentrations of helium were detected prior to or following the sample collection from any of the soil gas implants.

One outdoor (ambient) air sample was collected each day from a location upwind of the sample locations. The outdoor ambient air sample was collected by opening a summa canister fitted with a one-hour flow controller and drawing in the ambient air. Field duplicate samples were collected using stainless steel 'T' fittings. Copies of the completed Summa Canister Sampling Field Data Sheets from the sampling event are provided in Appendix F.

A COC form was maintained and accompanied the air and soil gas samples, which were shipped, via Federal Express, to Air Toxics, an NYSDOH ELAP accredited laboratory. The soil vapor and outdoor air samples were analyzed for the TCL VOCs listed in Table 2-2, following USEPA Method TO-15.

2.5 Direct Push Soil Borings

On February 14, 2011, Zebra mobilized to the site to hand clear 10 direct push soil boring locations in the vicinity of the monitoring well pair DEC-025/-025D. The direct push soil boring locations are shown on Plate 1. The sidewalk was cored at each location using a 4-inch diameter core bit. Each location was then hand cleared using a bucket auger. After the locations were cleared, they were backfilled with clean sand and temporarily patched with blacktop patch. Soil from each location was screened with a PID. Up to one soil sample was collected from each hand cleared location. Samples were collected from the interval exhibiting odors, staining, or the highest PID reading.

On February 17, 2011, Zebra utilized a track-mounted Geoprobe® 6620 DT hydraulic push unit to advance a 2-inch OD by 4-foot long acetate lined Macrocore sampler at the 10 previously cleared soil borings located in the vicinity of the monitoring well pair DEC-025/-025D. The soil borings were advanced to depths between 3.5 and 25.0 feet bgs. Refusal was encountered at all locations prior to reaching the water table. Upon completion, each soil boring was backfilled with clean sand and the top 4 inches was patched with concrete.

Each sample core was screened with a PID. Up to two soil samples were collected from each boring; one soil sample was collected from the interval near the bottom of the boring, the second sample was collected from the interval exhibiting odors, staining, or the highest PID reading. If no odors, staining, or elevated PID readings were encountered, then only one sample from the interval near the bottom of the boring was collected. Site photographs are provided in Appendix A; copies of the daily field notes are provided in Appendix B; and soil boring logs are provided in Appendix D.

A COC form was maintained and accompanied the soil sample containers to H2M. The soil samples were analyzed for TCL VOCs as listed in Table 2-2, plus TICs following USEPA SW846 Method 8260B.

All IDW generated from the monitoring well installation was containerized in DOT approved 55-gallon drums and picked up by AARCO on a daily basis for off-site disposal at a permitted facility.

2.6 Groundwater Monitoring Well Installation

The following sections describe the monitoring well installation program for the RI fieldwork.

2.6.1 Pre-Boring Clearing

Prior to any intrusive activities, the subcontractor obtained all necessary permits (i.e., NYC DOT street opening permits) for conducting intrusive activities. On January 24, 2011, ADT mobilized two Vac-Tron® units to perform location specific utility clearance at each of the proposed monitoring well locations. A total of 17 monitoring well locations were cleared between January 24 and 26, 2011. At each location, a two-foot by two-foot square area of the sidewalk was cut. An approximately one-foot diameter by five-foot deep hole was excavated using post-hole diggers, pry bars, and an air knife along with the Vac-Tron® unit. After the location was cleared for drilling, the hole was backfilled

flush with the sidewalk using the excavated spoils (rocks and debris removed) and if necessary, temporarily patched with blacktop patch or concrete.

2.6.2 Soil Borings

During the period of January 28 through February 14, 2011, ADT utilized track-mounted AMS Compact Roto Sonic 17-C drill rigs for the installation of 16 monitoring wells at the locations shown on Plate 1. Of the 16 monitoring wells installed, 6 were water table (shallow wells) and the remaining 10 were deep wells. An attempt was made to advance a top of clay well (DEC-063TC) however, the 14 inch diameter boring that was advanced to install a 12-inch inside diameter (ID) permanent steel casing caved in more than once. The boring would not stay open to facilitate the installation of the casing and it was decided to abandon the boring and fill it with cement/bentonite grout. An attempt to install DEC-063TC will be made during the next phase of fieldwork.

The soil borings associated with monitoring wells were advanced using a combination of a 3-inch diameter inner sampler (5 feet in length) and a 5-inch diameter outer casing. The procedure for the advancement of the borehole was to advance the inner sampler the appropriate interval (5 feet) and then advance the outer casing over the inner sampler to the desired depth. After the outer casing was advanced, the inner sampler was retrieved and the collected sample core was placed in a polyethylene sample tube. The process was repeated until the desired depth was reached.

Each sample core was screened with a PID. Up to two soil samples were collected from each boring; one soil sample was collected from the interval just above water table; the second sample was collected from the interval exhibiting odors, staining, or the highest PID reading. If no odors, staining, or elevated PID readings were encountered, then only one sample from the interval just above the water table was collected. Shelby tube samples were collected from DEC-059D and DEC-063D for geotechnical analysis. Site photographs are provided in Appendix A; copies of the daily field notes are provided in Appendix B; and soil boring logs are provided in Appendix D.

A COC form was maintained and accompanied the soil sample containers to H2M. The soil samples were analyzed for TCL VOCs as listed in Table 2-2, plus TICs following USEPA SW846 Method 8260B. Shelby tube samples were submitted to 3rd Rock, LLC of East Aurora, NY for geotechnical analysis. The Shelby tubes were tested for grain size distribution (ASTM D422),

Atterberg Limits (ASTM D4318), and falling head permeability (ASTM D5084). Results of the geotechnical analyses are discussed in Section 3.5.

All IDW generated from the monitoring well installation was containerized in DOT approved 55-gallon drums and picked up by AARCO on a daily basis for off-site disposal at a permitted facility.

2.6.3 Monitoring Well Construction

The 6 shallow monitoring wells were constructed with 15 feet of 2-inch ID, Schedule 40 polyvinyl chloride (PVC) 0.010-inch slot screen and riser. The screen was nominally set between 5 feet above and 10 feet below the water table at most locations. A 00 size sand pack was installed from the bottom of the well up to 2 feet above the top of the well screen. A bentonite slurry was then installed around the riser to an elevation of 2-foot below grade via tremie pipe.

The 10 deep monitoring wells were constructed with 10 feet of 2-inch ID, Type 304 stainless steel 0.010-inch slot screen and Type 304 stainless steel riser. Stainless steel screen and riser were used instead of PVC in case DNAPL was present in the deep well. PVC integrity degrades when in direct contact with chlorinated solvents. Each deep well was screened across the clayey silt unit encountered at all deep well locations. A 00 size sand pack was installed from the bottom of the well up to 2 feet above the top of the well screen. A bentonite slurry was then installed around the riser to an elevation of 2-foot below grade via tremie pipe.

Each monitoring well was finished with a locking well cap, a 2-foot square concrete apron, and a flush-mounted curb box. Security bolts were installed in the well covers to minimize the potential for unauthorized well access. The concrete apron for each well pad was approximately 6 inches thick. Monitoring well construction logs are provided in Appendix G.

2.7 Groundwater Level Measurements

Several rounds of groundwater levels were collected and used to develop groundwater contour elevation maps during the investigation so that groundwater flow directions could be determined. Monitoring wells within the area were checked for depth to groundwater and thickness of accumulated NAPL, if any. Water levels were determined using a 100-foot long Solinst oil/water interface probe. Table 2-1 presents groundwater level measurements and the presence/absence of NAPL in monitoring

wells. Groundwater elevations were adjusted if LNAPL was present, based upon the (laboratory) measured specific gravity of the product present in the individual monitoring well.

2.8 Monitoring Well Development

At least 24 hours after the monitoring wells were installed, the wells were developed by URS personnel with the pump and surge development method using a Wattera Inertial Hydrolift pump with dedicated/disposable high density polyethylene (HDPE) tubing and dedicated/disposable HDPE check valves. Prior to well development, a 100-foot long Solinst oil/water interface probe was used to check for the presence/thickness of any free product. During well development, water quality parameters (pH, specific conductivity, temperature, turbidity) were measured using a Hanna 991301 Multiparameter Meter and a Lamotte 2020 turbidimeter and recorded. A monitoring well was considered developed when a minimum of 100 gallons was removed, and water quality parameters had stabilized. Well development logs may be found in Appendix H. Well development water was collected in DOT approved 55-gallon drums and picked up daily by AARCO for off-site disposal at a permitted facility.

2.9 Aquifer Testing

Following well development, slug testing was conducted on 16 monitoring wells to estimate the horizontal hydraulic conductivity within the overburden. Falling head tests were performed by recording the initial water level in the well, lowering a pressure transducer/datalogger (In-situ MiniTroll) into the well, inserting a decontaminated slug to raise the water level in the well, and recording the water level over time until it returned to the original static level. Rising-head tests were performed immediately following completion of the falling head test. With the slug already in the water column, the static water level was recorded, the slug was then removed, and water level readings were taken as the water level gradually returned to static condition. Aquifer testing data and results are provided in Appendix I.

2.10 Non-Aqueous Phase Liquid Gauging

During Phase V and RI fieldwork, monitoring wells were checked for the presence of NAPL. Both DNAPL and LNAPL were observed as discussed below and presented on Table 2-1.

2.10.1 Dense Non-Aqueous Phase Liquid Gauging

During the Phase V investigation on June 22, 2009, DNAPL was observed in DEC-024D. The gauging was performed using a $^{1}/_{8}$-inch thick cotton rope weighted with a stainless steel bolt. Once the bottom of the well was reached, the string was left in the well for approximately 5 minutes and then removed. Approximately 1.5 feet of the string was stained dark brown with DNAPL. A DNAPL sample was collected, the results of which are discussed in Section 4.2.1.

During the RI on February 10, 2011, DNAPL was detected in both DEC-024D and DEC-024DR. No detectable amount was noted on a $^{1}/_{8}$-inch thick cotton rope weighted with a stainless steel bolt in DEC-024DR. Approximately 1.0 feet of the string was stained dark brown with DNAPL in DEC-024D. A small amount was recovered from each well using a dedicated/disposable HDPE bailers to verify the presence of DNAPL in the wells; however, no laboratory analysis was conducted.

DEC-024D, constructed of PVC, may be decommissioned at a future time when the presence of DNAPL has deteriorated the well to the point that it is no longer usable to gauge and recover DNAPL. The well will no longer be considered usable when a 1.75-inch OD bailer cannot be lowered to the bottom of the well.

2.10.2 Light Non-Aqueous Phase Liquid Gauging

During the Phase V investigation on July 7, 2009, LNAPL was detected in DEC-034 and DEC-054 with a thickness of 1.34 and 1.09 feet respectively. LNAPL sampling from monitoring wells DEC-034 and DEC-054 is discussed in Section 2.11.

During the RI, between February and March 2011, the thickness of LNAPL was observed from 0.0 to 3.99 feet in DEC-034; from 0.01 to 1.2 feet in DEC-054; and from 0.58 to 0.84 feet in DEC-053.

2.11 Non-Aqueous Phase Liquid Sampling

One NAPL sample was collected during the RI fieldwork. An LNAPL sample was collected on March 9, 2011 from DEC-053. Previously, four NAPL samples had been collected from wells during the Phase V fieldwork including DNAPL samples from DEC-024D on May 29, 2008 and again on June 22, 2009, and LNAPL samples on July 9, 2009 from DEC-034 and DEC-054.

2.11.1 Dense Non-Aqueous Phase Liquid Sampling

No DNAPL samples were collected during the RI field activities.

2.11.2 Light Non-Aqueous Phase Liquid Sampling

On March 9, 2011, URS personnel collected an LNAPL sample from DEC-053 using a dedicated/disposable HDPE bailer. A COC form was maintained by URS and accompanied the sample containers to H2M. The LNAPL sample was analyzed for TCL VOCs plus TICs, TCL SVOCs plus TICs, Petroleum Hydrocarbons by Method 8100 (modified), and specific gravity by ASTM D4052, as listed in Table 2-2. Per the Department's direction, a portion of the sample was subsequently sent by H2M to META Environmental, Inc. of Watertown, MA (META) for forensic analysis. In order to confirm the specific gravity results provided by Summit Environmental Technologies, Inc. of Cuyahoga Falls, OH (subcontractor to H2M), META also was instructed to analyze for specific gravity by ASTM D4052.

2.12 Groundwater Sampling

From March 2 through March 9, 2011, URS measured depth to groundwater and collected groundwater samples from 36 monitoring wells (16 newly installed and 20 existing DEC wells) plus QA/QC samples using low-flow sampling procedures. Due to the presence of LNAPL, groundwater samples from monitoring wells DEC-034, DEC-053 and DEC-054 were collected using 1-inch PVC with a tethered cap inserted into the well to bypass the LNAPL. The sample tubing was then inserted through the PVC pushing out the cap at a depth below the LNAPL in order to sample the well at the midpoint of the screen. Groundwater samples were not collected from DEC-024D and DEC-024DR due to the presence of DNAPL in the wells.

Prior to sample collection, standing water was purged from each well with a QED SamplePro Micropurge bladder pump using dedicated/disposable bladders and HDPE tubing. Wells were purged at a rate of 1-liter per minute or less and the purge rate was adjusted to minimize draw down. During the purging of the well, water quality parameters (pH, specific conductivity, temperature, dissolved oxygen, turbidity) were measured using a Horiba U-22 Multi-parameter Instrument with a flow-through cell and documented on a purge log. Samples were collected after the water quality

parameters stabilized. Purge logs are provided in Appendix J. Purge water was collected in DOT approved 55-gallon drums, and was picked up daily by AARCO for proper disposal.

All samples were transported under COC via laboratory courier to H2M. The groundwater samples were analyzed for TCL VOCs as listed in Table 2-2.

2.13 Investigation Derived Waste Disposal

AARCO was contracted for the daily pick-up and disposal of all drummed IDW at a permitted disposal facility. Copies of the non-hazardous bills of lading and hazardous waste manifests are provided in Appendix K.

2.14 Monitoring Well Maintenance

During RI fieldwork, well maintenance was performed on all DEC wells where groundwater samples were collected. Every well cover was removed and all the bolt holes were tapped out and lubricated with an anti-seize paste. All flush-mount protective casings on DEC wells were equipped with new Penta Head tamper proof bolts.

2.15 Concrete Sidewalk Flag Replacement

AARCO was contracted for the replacement of sidewalk flags that had been drilled through during previous and current site activities. AARCO replaced a total of 33 sidewalk flags between March 14 and 25, 2011. The sidewalk flags ranged in size from 5-foot by 5-foot to 10-foot by 10-foot square. Prior to removal of the damaged flags, AARCO cut the perimeter of each flag to be replaced using a water-cooled pavement saw to reduce fugitive dust. The flags were demolished, removed and disposed of by AARCO. New flags were replaced in kind to the surrounding flags. A photograph of flag replacement activities can be found in Appendix A. Copies of the daily field notes are provided in Appendix B.

2.16 Site Survey

URS surveyed the area, including all new soil borings, monitoring wells, and soil gas points installed for location and elevation. The survey provides 100-scale mapping and does not include elevated roadways and expressways (i.e., BQE). All surveying was performed under the supervision of a New York State licensed land surveyor. All vertical control points were referenced to the North

American Vertical Datum 1988 (NAVD 1988). Horizontal datum was referenced to the North American Datum of 1983 (NAD83), New York State Plane Coordinate System, Long Island Zone. Copies of survey field notes and site sketches are provided in Appendix L. A site survey drawing is provided in Appendix M.

3.0 PHYSICAL CHARACTERISTICS OF THE STUDY AREA AND GEOLOGY

This section discusses the physical characteristics of the study area including: surface features, groundwater use, demography and land use, soil, surface water hydrology, geology and hydrogeology.

3.1 Surface Features

The elevation of the Spic and Span property is approximately at 20 feet above mean sea level (amsl). The topography of the site investigation area slopes gently downward to the north and northwest to approximately 6 feet amsl at the bulkhead along Newtown Creek and to approximately 10 feet amsl at the intersection of Monitor Street and Norman Avenue. The elevation to the south and east of the site rises to approximately 30 feet near the intersection of Morgan and Nassau Avenues and the edge of Monsignor McGolrick Park.

The entire site property and the majority of the project area are covered by one-story and multi-story buildings and/or pavement/concrete. The site is protected from trespassers by locked doors and windows. Vehicle access is through a secured and locked overhead door on Kingsland Avenue.

Limited green space is present in the area and generally on in the vicinity of residential properties. Surface soil is present in landscape boxes adjacent to area sidewalks; however, given the nature of the urban environment and the fact that dogs are exercised along the sidewalks, the soil should not be construed as representative of clean surface soil. Monsignor McGolrick Park is an 9.13 acre park 1,200 feet southwest of the site bounded by Monitor and Russell Streets and Nassau and Driggs Avenues (Plate 1).

3.2 Demography and Land Use

The site is located in the Greenpoint/East Williamsburg Industrial Area section of the Borough of Brooklyn, Kings County, New York. The population of the Brooklyn (Kings County) is 2,504,700 according to the 2010 Census. The area is a mixture of residences and manufacturing facilities, including both commercial and industrial facilities. The Spic and Span property is currently being used by an import business; however residences are also present on the property. Petroleum refining and storage operations occupy a significant portion of the Greenpoint area, especially to the north and east. Residential areas are generally present south of the site.

Land use in New York City is regulated by the City's Zoning Resolution, which has two parts: zoning text and zoning maps. The text establishes zoning districts and sets forth regulations governing their land use and development. The maps show the locations and boundaries of the zoning districts. The City is divided into three basic zoning districts: residential (R), commercial (C), and manufacturing (M). The three basic districts are further divided into a range of lower-, medium-, and higher-density residential, commercial, and manufacturing districts.

The project area falls within four zoning districts identified by the New York City Department of City Planning (http://www.nyc.gov/html/dcp/html/zone/zh_zmaptable.shtml). These zoning districts are: R6, R6B, M1-2, and M3-1. The current (2011) zoning and land use of individual properties was determined through the NYCity Map (http://gis.nyc.gov/doitt/nycitymap).

R6 and R6B Residential Districts (medium density). Primary permitted uses in the R6 district include medium density residential. A mixture of building types are allowed and range from small apartment buildings set back on small lots to row houses to large-scale apartment towers. The "B" suffix indicates a contextual district, where supplemental regulations require a new development to maintain the scale and form of the existing neighborhood context. Residential properties along Monitor Street, and the majority of Kingsland and Nassau Avenues, are zoned R6B.

M1-2 Manufacturing District (light industrial). Permitted uses in the M1-2 district include typical light industrial, office and retail uses. M1 districts are often a buffer between M2 or M3 manufacturing districts and adjacent residential or commercial districts. Residences are generally not included within M1 districts unless as part of a Special Mixed Use District. The "2" suffix refers to supplemental parking requirements. The majority of properties south of Norman Avenue are located in the M1-2 district.

M3-1 Manufacturing District (heavy industrial). Permitted uses in the M-3 industrial district include heavy industry that generate potential nuisance effects such as noise, traffic or pollutants and include power plants and fuel supply depots. The "1" suffix refers to supplemental parking requirements. Properties north of Norman Avenue and along the east side of Morgan Avenue are zoned M3-1.

Two properties have two zoning districts listed. The property at 284 Kingsland (Lot 48) is listed as both R6 and M1-2. The property at 307 Kingsland Avenue (Lot 15) is listed as both R6B and M1-2.

3.3 Regional Geology

The site investigation area is located within the Atlantic Coastal Plain physiographic province of New York State (Broughton et al., 1966). The Atlantic Coastal Plain is characterized by low relief with elevations ranging from sea level to almost 400 feet amsl. The lithology of Brooklyn and Queens consists of Cretaceous and Pleistocene age unconsolidated deposits underlain by Precambrian crystalline bedrock. The unconsolidated deposits pinch out in northwestern Queens where bedrock outcrops, but reach a thickness of more than 1,000 feet in southeastern Queens. Information for the United Stated Geological Survey (USGS) (USGS, 1999a) indicates that the unconsolidated deposits form 6 distinct hydrogeologic units consisting of 4 aquifers and 2 confining layers that generally dip to the south-southeast (Figure 3-1). The units in ascending order are the Lloyd aquifer (0-300 feet thick), the Raritan confining unit (0-200 feet thick), the Magothy aquifer (0-500 feet thick), the Jameco aquifer (0-200 feet thick), the Gardiners clay (0-150 feet thick), and the upper glacial aquifer (0-300 feet thick). The units pinch out to the north-northeast and may not all be found at any one location.

Based on USGS information on borings performed near the site for unrelated work, the site is underlain from the surface down by upper glacial aquifer, the Raritan confining unit, and crystalline bedrock. The upper glacial aquifer is of Wisconsin age and consists of a terminal moraine, a ground moraine, and glacial outwash deposits whose area is characterized as an unsorted and unstratified mixture of clay, sand, gravel and boulders. The Raritan confining unit consists of deltaic clay and silty clay beds and some interbedded sands. The Raritan confining unit has been encountered in three borings performed near the Meeker Trackdown Plume site: one boring near Morgan Avenue and Meeker Avenue (-47 feet amsl); one boring under the BQE near the west bank of Newtown Creek (-48 feet amsl); and one boring near Meeker Avenue between Stewart Avenue and Gardner Avenue (-71 feet amsl). The boring near Morgan Avenue and Meeker Avenue penetrated the Raritan confining unit into the underlying crystalline bedrock at a depth of -163 feet amsl.

3.4 Site Geology

Figure 3-2 presents the locations of the monitoring wells and cross sections developed during the RI. Cross sections A-A', B-B', C-C', D-D' are shown on Figures 3-3 through 3-6, respectively.

Based upon subsurface data obtained during this and previous investigations, only the upper glacial aquifer has been penetrated. The following textural units have been found in the upper glacial aquifer in most areas of the site from the surface downward: a sand unit; a discontinuous glacial till unit; and a discontinuous clayey silt unit. A fill unit, found in MW-85, is present in the area, varying in thickness from approximately 0 to 9 feet, and consists of a heterogeneous mixture of sand, silt, clay and varying amounts of construction and demolition debris (i.e., bricks, concrete, coal, slag, etc.).

The sand unit is present at the majority of boring locations and is represented by stratified sands of varying textures containing some to no fines. The entire thickness of the sand unit has not been penetrated. However, it was found to be approximately 50 feet thick at location DEC-054. The discontinuous glacial till unit was noted in borings and consists of a heterogeneous mixture of sand, silt, and clay and varying amounts of gravel, cobbles and boulders. The discontinuous clayey silt unit has been observed from the ground surface, as an inclusive unit within the sand unit, and at depth, and has been observed in most of the borings at the site. The thickness of the clayey silt unit, where present, varies from 0.5 to over 20 feet thick. The presence of the clayey silt unit at well location DEC-024D has resulted in the accumulation of DNAPL at the interface between the sand unit and the inclusive clayey silt unit at approximately 50 feet bgs (-29.78 feet amsl). This unit was also found in nearby wells (DEC-023D, DEC-024DR, DEC-035D, DEC-053D and DEC-055D) at depths ranging from 50 feet bgs (-29.84 feel amsl) at DEC-024DR to 65 feet bgs (-48.80 feet amsl) at DEC-023D.

3.5 Geotechnical Test Results

During Phase 1 of the RI, two soil samples from Shelby tubes were analyzed in March 2011 by 3rd Rock, LLC of East Aurora, NY for grain size distribution (ASTM D422), Atterberg Limits (ASTM D4318), and falling head permeability (ASTM D5084). The samples were obtained from DEC-059D at a depth of 59.5 – 61 feet, and DEC-063D at a depth of 55.3 – 56.8 feet. Results are presented in Appendix N and summarized below.

	DEC-059D (59.5 – 61')	DEC-063D (55.3 – 56.8')
Material Description	sandy silt	silt
Grain Size	32.9% sand; 62.7% silt, 4.4% clay	11.1% sand, 77.3% silt, 11.6% clay
Atterberg Limits	non-plastic	non-plastic
USCS Classification	ML	ML
Average K	7.7×10^{-5} cm/sec	6.1×10^{-6} cm/sec

These results confirm the classification of ML for the depth intervals in the two monitoring wells provided in the boring logs. The hydraulic conductivity values of the silt/sandy silt layer are 2 to 3 orders of magnitude less than those of the sand layer above (1.46×10^{-3} and 6.74×10^{-3} cm/sec in DEC-059D and DEC-063D, respectively). The silt layers and lenses are considered semi-confining layers.

3.6 Historic Fill and Background Soil

To be completed following collection of background soil samples from McGolrick Park.

3.7 Groundwater Levels and Hydrogeology

The primary hydrogeologic unit identified beneath the investigation area is the upper glacial aquifer. Groundwater in the area is present in unconfined conditions; however, confined conditions are possible due to the presence of interbeds of sand, clay, and silt. The water table surface may be found between approximately 11 and 25 feet bgs depending on the well location. The water table has been influenced by the operation of the Off-Site System operated by ExxonMobil since approximately 1995. The operation of the Off-Site System has produced localized cones of depression resulting in an inward hydraulic gradient around the perimeter of the Off-Site Plume area, which has prevented the expansion of the Off-Site Plume.

3.7.1 Groundwater Levels

Several rounds of synoptic groundwater levels were obtained in February and March 2011 from 22 DEC monitoring wells. These were used to develop groundwater contour elevation maps during the RI so that groundwater flow directions could be determined. Potentiometric surface maps based on the water level measurements from the shallow wells, using a 1-foot contour interval, are provided in Figures 3-7, 3-8 and 3-9 for February 24, 2011, March 2, 2011, and March 21, 2011, respectively. Water levels were adjusted in monitoring wells DEC-034, DEC-053 and DEC-054 where LNAPL was found to be present based on specific gravity measurements. (An LNAPL sample from DEC-053 was collected and sent to META for determination of specific gravity. Specific gravity for LNAPL in DEC-034 and DEC-054 were previously determined by Roux. Analytical results for the URS and Roux LNAPL samples are provided in Appendix P.) Potentiometric surface maps based on the water level measurements from the deep wells, using a 1-foot contour interval, are provided in Figures 3-10, 3-11 and 3-12 for February 24, 2011, March 2, 2011, and March 21, 2011, respectively. Water level measurements are included in Table 2-1. Hydraulic gradient calculations are provided on Table 3-1.

In the immediate vicinity of the Spic and Span property, the groundwater flow is north to northeast. The horizontal hydraulic gradient is approximately 0.02 foot per foot (ft/ft).

The vertical hydraulic gradients in well pairs varied in direction across the investigation area. Vertical hydraulic gradients in well pairs DEC-023/023D, DEC-024/024D, DEC-055/055D, DEC-057/057D were slightly positive or downwards (generally 0.002 ft/ft) based upon the water level information. Vertical hydraulic gradients in well pairs DEC-058/058D, DEC-059/059D, and DEC-060/060D are positive or downwards to a greater extent (0.069, 0.027, 0.084 ft/ft, respectively). To the west, the vertical hydraulic gradients in well pair DEC-035/035D are slightly negative or downwards (-0.002 ft/ft) based upon the water level information.

3.7.2 Slug Test Results

Slug test results are presented on Table 3-2. In all cases, the rising head and falling head results were well within one order of magnitude of each other. The representative hydraulic conductivity (K) was computed as the geometric mean of the rising and falling head values. In cases where a constant static head was not established prior to the start of the falling head test, and since

rising head tests are considered to be more representative of hydraulic conductivity (Bouwer, 1989), the K value considered to be representative is the rising head value (DEC-058D, -060D, -061D, -062D).

During slug testing of DEC-036D, the water level was not allowed to fully recover to a static level. Tests were analyzed, but are considered invalid. Slug testing in this monitoring well will be re-tested during Phase 2 field investigations.

The hydraulic conductivity (K) in the overburden ranged from 2.91 x 10^{-2} cm/sec (DEC-063S) to 8.32 x 10^{-5} cm/sec (DEC-060S). In the shallow overburden, the mean value of K is 8.03 x 10^{-3} cm/sec for the sand clayey silt/sand unit, and 3.15 x 10^{-4} for the sandy silt. In the deep overburden, the mean value of K is 1 x 10^{-3} for the sand/silty sand, and 9.32 x 10^{-5} for the sandy silt.

3.8 Surface Water and Hydrology

The site slopes slightly to the west and north and is bounded by streets on the north and east. The surface of the site is entirely covered by buildings and/or pavement/sidewalks. Minimal onsite ponding was observed during field investigations. There are storm water drop inlets (DIs) on the northeast corner of the site along Kingsland Avenue near Norman Avenue. Three additional DIs are located near the intersection of Norman Avenue and Kingsland Avenue. (DI locations will be shown on Figure 1-2 following the collection of field information during the next phase of the project.)

The nearest surface water body is Newtown Creek located approximately 1,500 feet northeast of the site. Newtown Creek is classified as a Class SD (marine waters) surface water body by the NYSDEC. The best usage of Class SD waters is fishing. These waters shall be suitable for fish, shellfish, and wildlife survival. The classification may be given to those waters that, because of natural or man-made conditions, cannot meet the requirements of primary and secondary contact recreation and fish propagation. While Newtown Creek may not be suitable for swimming and other recreational activities that involve human contact with surface water, individuals use Newtown Creek for swimming. Water is not withdrawn from Newtown Creek for potable use. Numerous storm water drains from surrounding roadways and permitted Spill Discharge Elimination System (SPDES) outfalls discharge into Newtown Creek, including those discharging groundwater collected and treated on the nearby Exxon/Mobil remediation site.

Surface water levels within Newtown Creek vary depending on the tide. High tide in Newtown Creek is generally at an elevation of 4 to 5 feet amsl; low tide is generally at an elevation of 0 to -1 feet amsl (www.saltwatertides.com).

3.9 Utilities

Utilities on and near the site include underground water, electric, natural gas, sanitary and storm sewer. Overhead electric and communication lines run north-south adjacent to the site within the western sidewalk along Kingsland Avenue and east-west within the north sidewalk along Norman Avenue. Fire hydrants are located on Kingsland Avenue and Norman Avenue. Approximate utility information will be provided on a Figure following the RI Phase 2 field investigation. Utility locations are provided for information only; locations were not surveyed during the RI.

3.10 Production and Extraction Wells Affecting Site Area

To be completed during RI Phase 2.

3.11 Standards, Criteria and Guidance Values

For each medium, detected concentrations of individual contaminants were compared to applicable standards, criteria and guidance values (SCGs). The site-specific SCGs were determined for the individual media as follows:

Soil

Three sources of soil SCGs are considered appropriate for this site: site-specific background soil samples, NYSDEC Part 375, and NYSDEC CP-51.

Eight soil samples will be obtained from the 0 to 2-foot depth interval from eight locations in Monsignor McGolrick Park. These samples will be analyzed for TCL/TAL contaminants. Detected concentrations will be considered to be representative of site-specific background for the Spic and Span Site. These soil background concentrations will be included as soil SCGs on the soil analytical tables presented in Section 4 during the next phase of the project.

Part 375 criteria are considered as SCGs for soil samples in conjunction with CP-51 criteria. CP-51 supplements Part 375 by providing criteria for contaminants previously included under TAGM

4046 where values were not included in Part 375. Hereafter, mention of Part 375 includes incorporation of CP-51 criteria values. Part 375 unrestricted use criteria are considered to assist in the development of a remedial alternative capable of achieving unrestricted future use, as required by DER-10 Section 4.4 (b) 3 ii. In addition, criteria for the Protection of Groundwater are considered as SCGs for contaminants which exceed groundwater SCGs. These are identified in Section 4.

Soil samples were obtained from soil borings on properties zoned residential and/or manufacturing by the NYC Department of City Planning. The zoning classification for the property of location of the soil boring is a consideration in the determination of the appropriate soil SCGs. The majority of properties within the investigation area north of Nassau Avenue and west of Kingsland Avenue are zoned residential. The majority of properties south of Nassau Avenue to the Brooklyn Queens Expressway are zoned manufacturing. The majority of properties east of Kingsland Avenue are zoned manufacturing. A few dual-zoned residential and manufacturing properties are present.

As discussed in Section 3.2, properties located in the manufacturing districts in NYC may be either industrial or commercial use. However, land uses allowed within manufacturing districts include residential use either within special mixed use districts or by special permit. Therefore, residences may be present on properties throughout the entire investigation area. Therefore, the soil SCGs considered appropriate for the site are residential criteria (as opposed to commercial or industrial criteria). Part 375 restricted residential and residential land use soil cleanup criteria for the soil samples are used on the soil analytical data tables in Section 4.

Groundwater

The SCGs for groundwater are the Class GA standards and guidance values presented in NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998 (including subsequent revisions). These groundwater SCGs are included on the groundwater analytical tables presented in Section 4.

Surface Water/ Sediments

No surface water or sediment samples were collected therefore no SCGs were determined.

Soil Vapor

There are no criteria for soil vapor analytical data.

4.0 NATURE AND EXTENT OF CONTAMINATION

The following sections discuss the results of the soil, NAPL, groundwater and soil vapor/air sample analyses for the RI fieldwork at the Spic and Span site.

4.1 Soil Analytical Results

The soil sample results were compared to appropriate Part 375 criteria identified for the soil samples discussed in Section 3.11. Thirty-eight soil samples were collected during RI Phase 1 from 29 locations during the period January 25 through February 17, 2011. (At some locations, more than one sample was obtained from multiple depths). Including all soil samples from RI Phase 1 and Phases I through V of the Site Characterization, 61 soil samples were obtained from 49 borings and 40 soil gas locations in the Spic and Span area. A summary of the detected analytical results in all soil samples compared to unrestricted use and protection of groundwater SCGs is presented in Table 4-1. Table 4-2 lists the detected analytical results for soil samples as compared to residential and restricted residential SCGs for all soil samples. Table 4-3 provides a statistical summary of the detected TCL parameters for all soil samples collected by URS since Phase I of the SC through RI Phase 1 in the Spic and Span site area as follows: the number of detections; the minimum, maximum and average values; and the location and depth of the maximum value. The complete validated analytical results from the RI soil samples are presented in the Data Usability Summary Report (DUSR) in Appendix O, on a compact disc. Data summary tables, Form I and Form Ie (TICs) are provided in the DUSR and include the reporting limit for each non-detected compound. RI soil data exceeding criteria is presented on Figure 4-1A for Unrestricted Use and Protection of Groundwater and Figure 4-1B for Restricted Residential and Residential Use.

Soil sample results were compared to unrestricted use and protection of groundwater criteria. Locations which exceeded criteria for unrestricted use also exceeded protection of groundwater criteria. PCE exceeded unrestricted and protection of groundwater criteria in previously installed borings in DEC-024DR (1,000 mg/kg at 45-46 feet bgs) and DEC-025D (140 mg/kg at 0-1.5 feet bgs; 1,300 mg/kg at 1.5-2.5 feet bgs). DNAPL containing 73% PCE was gauged in the adjacent well DEC-024D at approximately 52.5-54 feet bgs. The PCE found in the soil at DEC-024DR may be the results of lateral spreading of the DNAPL due to the decrease in soil permeability at that depth.

The PCE detection in DEC-025D appears to be a separate PCE source, as observations of PCE were at a depth immediately below the concrete sidewalk, rather than from operations at the Spic

and Span site. Borings SSB-01 through SSB-10 were installed during the RI in the vicinity of DEC-025D. PCE exceeded criteria in borings to the south of DEC-025D: SSB-03 (2,000 mg/kg at 1-1.5 feet bgs; 110 mg/kg at 5.5-6 feet bgs), SSB-06 (1,200 mg/kg at 13-13.5 feet bgs), and SSB-08 (1,300 mg/kg at 0.5-1 foot bgs). PCE exceeded criteria in one of the two borings to the west of DEC-025D: SSB-05 (34 mg/kg at 8.5-9 feet bgs), and in two of the four borings to the north of DEC-025D: SSB-04 (1.8 mg/kg at 22-22.5 feet bgs) and SG-071 (200 mg/kg at 0.5-1 foot bgs). TCE exceeded criteria in SSB-06 (0.49 mg/kg at 13-13.5 feet bgs) and SSB-08 (21 mg/kg at 0.5-1 foot bgs). Cis-1,2-dichloroethene exceeded criteria in SSB-08 (0.35 mg/kg at 0.5-1 foot bgs).

Soil samples previously collected from DEC-034, DEC-053 and DEC-054 located north and northeast of the Spic and Span property exceeded criteria for petroleum-related compounds [acetone in DEC-053 (0.074 mg/kg at 8-9 feet bgs), benzene in DEC-053 (1.3 mg/kg at 14-15 feet bgs) and DEC-054 (0.84 mg/kg at 14-15 feet bgs; 0.83 mg/kg at 18-19 feet bgs), isopropylbenzene in DEC-034 (2.4 mg/kg at 14-15 feet bgs), DEC-053 (14 mg/kg at 14-15 feet bgs) and DEC-054 (34 mg/kg at 14-15 feet bgs; 35 mg/kg at 18-19 feet bgs), and xylenes in DEC-053 (3.4 mg/kg at 14-15 feet bgs)]. Phase 1 RI boring DEC-058 is located in the same general location as DEC-034, DEC-053 and DEC-054 and exceeded the criteria for isopropylbenzene (3.5 mg/kg at 14-15 feet bgs).

Soil sample results were compared to restricted residential and residential use criteria as presented on Table 4-2. PCE exceeded both restricted residential and residential use criteria in DEC-024DR (1,000 mg/kg at 45-46 feet bgs), DEC-025D (140 mg/kg at 0-1.5 feet bgs and 1,300 mg/kg at 1.5-2.5 feet bgs), SG-071 (200 mg/kg at 0.5-1-foot bgs), SSB-03 (2,000 mg/kg at 1-1.5 feet bgs and 110 mg/kg at 5.5-6 feet bgs), SSB-05 (34 mg/kg at 8.5-9 feet bgs), SSB-06 (1,200 mg/kg at 13-13.5 feet bgs), and SSB-08 (1,300 mg/kg at 0.5-1-foot bgs). Additionally, TCE exceeded the residential use criteria, but not the restricted residential use criteria, in SSB-08 (21 mg/kg at 0.5-1-foot bgs). The concentration of TCE in SSB-08, along with the presence of low-levels of other VOCs indicates that PCE has undergone degradation at this location. As discussed above, all the locations which exceeded either residential criteria SCGs, DEC-025D, SG-071, SSB-03, SSB-05, SSB-06 and SSB-08, appear to be a separate source than from operations at the Spic and Span property.

4.2 Non-Aqueous Phase Liquid Analytical Results

A summary of the detected TCL VOCs and SVOCs in the NAPL (LNAPL and DNAPL) samples collected by URS from Phase I of the SC through RI Phase 1 is presented in Table 4-4. The

complete validated analytical results from the RI NAPL samples are presented in the DUSR in Appendix K. Data summary tables, Form I and Form Ie (TICs) are provided in the DUSR and include the reporting limit for each non-detected compound.

4.2.1 Dense Non-Aqueous Phase Liquid Analytical Results

A slight DNAPL staining was observed in DEC-024D and DEC-024DR during the RI. No DNAPL samples were obtained during the RI. The results from the DNAPL sample collected from monitoring well DEC-024D during the Phase V investigation, presented on Table 4-4, shows PCE at a concentration of 730,000 mg/kg or 73% and TCE at 720 mg/kg (0.072%). 1,2,4-Trichlorbenzene, 1,1-biphenyl and bis(2-ethylhexyl)phthalate were also detected in the DNAPL, at significantly lower concentrations (0.017% or lower), as shown in Table 4-4. The tentatively identified compounds found in the volatile and semivolatile fractions indicate the presence of petroleum related compounds. These results were consistent with the results of the DNAPL sample collected from this well during Phase III on May 29, 2008.

4.2.2 Light Non-Aqueous Phase Liquid Analytical Results

LNAPL has been found in DEC-034, DEC-053 and DEC-054. In the LNAPL sample from monitoring well DEC-034, PCE was found at a concentration of 1.1 mg/kg (0.00011%). In the LNAPL sample from monitoring well DEC-053 and DEC-054 no chlorinated compounds were detected. All other compounds detected in samples DEC-034, DEC-053 and DEC-054 were attributed to petroleum related compounds. The forensic analysis of the LNAPL from DEC-053 determined that the primary constituents were leaded and unleaded gasoline, with lesser amounts of fuel oil and other petroleum related compounds. The META forensic report is provided in Appendix P.

Roux Associates, on behalf of ExxonMobil in July 2009, submitted LNAPL samples from DEC-034 and DEC-054 for laboratory analysis of density, viscosity, surface tension and gas chromatographic comparison to select petroleum hydrocarbons. Physical property results are shown in the following table.

Physical Properties Measurements				
Sample	Density (g/mL)	Viscosity (centipoise)	Surface Tension Air/NAPL (dynes/cm)	Temp
DEC-034 (Roux, 7/8/09)	0.8218	2.14	25.3	60 F
DEC-054 (Roux, 7/8/09)	0.8019	1.46	22.9	60 F
DEC-053 (URS, 3/9/11)	0.7847	-	-	60 F

4.3 Groundwater Analytical Results

A summary of the detected TCL VOCs in the RI groundwater samples collected from monitoring wells is presented in Table 4-5. Results exceeding TOGS No. 1.1.1 Class GA groundwater criteria are indicated with a circle. The locations of detected VOCs that have exceeded their respective criteria are shown on Figure 4-2. Isoconcentration contours of PCE in the RI groundwater samples are shown on Figures 4-3 and 4-4 for the shallow and deep overburden, respectively. Table 4-6 provides a statistical summary of the detected parameters for the RI groundwater samples as follows: the number of detections; the minimum, maximum and average values; and the location of the maximum value. Table 4-7 provides a historical summary of the detected parameters for all groundwater samples collected by URS since Phase I in the Spic and Span site area. Table 4-8 provides a statistical summary of the detected parameters for all samples collected by URS since Phase I in the Spic and Span area as follows: the number of detections; the minimum, maximum and average values; and the location of the maximum value. The complete validated analytical results from the RI groundwater samples are presented in the DUSR in Appendix K. Data summary tables, Form I and Form Ie (TICs) are provided in the DUSR and include the reporting limit for each non-detected compound.

4.3.1 Groundwater PCE Detections

PCE was detected in 23 of the 36 groundwater samples collected during the RI, at concentrations exceeding groundwater criteria ranging from 6 µg/L to 76,000 µg/L (Figure 4-2). The

highest concentration of PCE in the shallow overburden was detected at DEC-060 (20,000 µg/L), followed by DEC-058 (18,000 µg/L) and DEC-036 (7,400 µg/L). The highest concentration of PCE in the deep overburden was detected at DEC-057D (76,000 µg/L), followed by DEC-060D (19,000 µg/L), DEC-058D (14,000 µg/L), and DEC-036D (6,100 µg/L). It should be noted that the interval of saturated sand that DEC-036 is screened in (approximately -18.65 to -24.69 feet amsl) is closer in elevation to the screened interval of DEC-024D (approximately -23.78 to -33.78 feet amsl) than it is to the screened interval of DEC-024 (approximately -3.5 to -11.45 feet amsl). The relative location of the screened intervals and geologic conditions in the vicinity of DEC-036, DEC-024, DEC-024D, DEC-024DR and DEC-025 are shown on the cross-sections in Figures 3-3 through 3-6. Therefore DEC-036 is only represented in the deep groundwater isoconcentration contours.

Figure 4-3 depicts isoconcentration contours for PCE in the shallow groundwater from analytical data collected during Phase I through V and the RI. The concentrations of PCE in shallow wells near the Spic and Span property (DEC-058, DEC-060) is greater than the concentrations found during the previous groundwater sampling events in the Spic and Span site area. The shallow dissolved phase plume appears to have migrated downgradient of the Spic and Span property, in the direction of groundwater flow, towards the northeast and east as shown in the contours identified in Figure 4-3.

A separate PCE plume is identified in the shallow overburden. This separate, as yet to be determined source, will be further investigated in the next phase of the field investigations.

Figure 4-4 depicts isoconcentration contours for PCE in the deep groundwater from analytical data collected during Phase I through V and the RI. A groundwater sample was not collected from DEC-024D due to the presence of DNAPL in the well. The plume appears to have migrated downgradient of the Spic and Span property, to a greater extent than in the shallow overburden, moving with deep groundwater flow towards the northeast, east and south.

Groundwater and DNAPL samples collected during Phase V have confirmed the potential of a source of PCE in the vicinity of DEC-024/DEC-024D. The horizontal extent of DNAPL has not been determined as it has only been found in DEC-024D and DEC-024DR (gauged approximately 1.5 feet of 73% PCE in DEC-024D, as discussed in Section 4.2.1).

4.3.2 Groundwater TCE Detections

TCE was detected in 16 of the 36 groundwater samples collected during the RI, at concentrations exceeding groundwater criteria ranging from 8 µg/L to 3,700 µg/L. The highest concentration of TCE in the shallow overburden was detected at DEC-058 (3,700 µg/L), followed by DEC-060 (3,300 µg/L) and DEC-036 (1,500 µg/L). The highest concentration of TCE in the deep overburden was detected at DEC-060D (1,600 µg/L), followed by DEC-058D (870 µg/L), and DEC-036D (530 µg/L).

4.3.3 PCE and TCE Degradation Product Detections

The presence of PCE and TCE degradation products have also been detected in the RI groundwater samples at concentrations exceeding groundwater criteria (Figure 4-2). Cis-1,2-DCE was detected above groundwater criteria in 14 of the 36 RI groundwater samples. The range of cis-1,2-DCE varied from 7 µg/L to 14,000 µg/L, with the highest concentration detected at DEC-058 followed by DEC-060 (6,900 µg/L) and DEC-060D (3,800 µg/L). Trans-1,2-DCE was exceeded criteria in 4 samples with the highest concentration in DEC-060 (45 µg/L). Vinyl chloride exceeded criteria in 10 of the 36 RI groundwater samples. Vinyl chloride exceeding criteria ranged from 5 µg/L to 3,200 µg/L, with the highest concentration detected at DEC-058 followed by DEC-057 (610 µg/L).

Similar to wells with PCE and TCE, degradation products have typically been found in monitoring wells to the northeast and east (i.e., DEC-058, DEC-060/060D, and MW-057), indicating the degradation of the plume due to reductive dechlorination. This is most likely due to the non-chlorinated hydrocarbons associated with the off-site plume from the off-site source. Fuel hydrocarbons serve as electron donors. Their presence, combined with low redox conditions, can allow bacteria to reductively dechlorinate chlorinated hydrocarbons. Compounds related to petroleum products (i.e., 1,2,4-trichlorobenzene, 1,4-dichlorobenzene, benzene, isopropylbenzene and/or methyl tert-butyl ether) have been detected above criteria in wells DEC-023, DEC-024, DEC-034, DEC-053, DEC-054, DEC-057/057D and DEC-058.

4.4 Soil Gas Analytical Results

The locations of the VOCs detected in soil gas during the RI including PCE and its breakdown products are shown on Figure 4-5. A summary of detected VOCs in the soil gas and ambient air samples collected during the RI is presented in Table 4-9. Table 4-10 provides a statistical summary of the detected parameters for the RI air and soil gas samples as follows: the number of

detections; the minimum, maximum and average values; and the location of the maximum value. Table 4-11 provides a historical summary of the detected parameters for all air and soil gas samples collected by URS in the Spic and Span site area since Phase I. Table 4-12 provides a statistical summary of the detected parameters for all samples collected by URS since Phase I in the Spic and Span area as follows: the number of detections; the minimum, maximum and average values; and the location of the maximum value. The complete validated analytical results from the RI air and soil gas samples are presented in the DUSR in Appendix K. Data summary tables and Form I's are provided in the DUSR and include the reporting limit for each non-detected compound.

PCE was detected at concentrations ranging from non-detect to a high of 8,200,000 $\mu g/m^3$ at location SG-071, which may be attributed to an apparent source area in the vicinity of location DEC-025D and in soil samples from borings SSB-01 to SSB-10 and SG-071. PCE concentrations were high both northwest (SG-067 at 18,000 $\mu g/m^3$), south (SG-070 at 1,100 $\mu g/m^3$, SG-073 at 24,000 $\mu g/m^3$ and SG-074 at 1,200 $\mu g/m^3$) and west (SG-069 at 12,000 $\mu g/m^3$) of this source area.

The concentration of TCE was significantly higher than the PCE concentration at SG-004, SG-065 and SG-072. Location SG-065 had concentrations of PCE at 330 $\mu g/m^3$ and TCE at 1,500 $\mu g/m^3$. On Morgan Avenue, location SG-004 had a PCE concentration of 1,300 $\mu g/m^3$ and a TCE concentration of 32,000 $\mu g/m^3$. Location SG-072 had a PCE concentration of 92 $\mu g/m^3$ and TCE at 1,300 $\mu g/m^3$. The majority of remaining soil gas locations had PCE and/or TCE concentrations less than at location SG-065. It should be noted that 1,1,1-trichloroethane was also found in several of the soil gas samples, with the highest concentration at location SG-004 at 1,100 $\mu g/m^3$.

5.0 CONTAMINANT FATE AND TRANSPORT

This section describes fate and transport processes that may influence the behavior of the contaminants detected at the site. The discussion emphasizes the processes that are essential in evaluating potential exposure of human and environmental receptors to the site contaminants detected at concentrations above the SCGs. The following items are presented in this section:

- General description of fate and transport processes occurring in soil, groundwater and soil vapor/air systems.
- Identification and description of properties of contaminants detected above the SCGs in the various media at the site.
- Media-specific and contaminant-specific evaluation of potential fate and transport mechanisms occurring at the site.

5.1 General Description of Fate and Transport Mechanisms

This section provides general descriptions of the fate and transport processes that can occur in the environment in which samples were collected as part of the site investigations. In addition, the site characteristics that can affect these processes are discussed.

5.1.1 Transport Processes

Contaminant transport in the subsurface can occur as movement of dissolved contaminants in groundwater; and/or as migration of volatilized contaminants in soil vapor. The primary transport mechanisms are advection, dispersion, and partitioning of mass.

Mass partitioning is a process in which contaminants move between different environmental media in response to concentration gradients. For example, contaminants dissolved in groundwater may sorb (i.e., attach) onto soil particles or volatilize into the soil vapor. The process may involve mass transfer in any direction between any of the environmental media. The net result of mass

partitioning is the distribution of the contaminant between all phases that remain in physical contact with each other. Typically, mass partitioning acts to inhibit the migration of contaminants in groundwater or soil vapor by immobilizing a part of the mass in the soil matrix (retardation). However, the process may be reversed, resulting in the slow release of the sorbed contamination into the groundwater or soil vapor.

In the unsaturated zone (i.e., between ground surface and the water table), the total mass of a contaminant is partitioned between the dissolved phase (soil moisture), the gas phase (soil vapor), and the solid phase (soil matrix). In the saturated zone, the soil vapor phase is absent and the partitioning occurs only between the soil matrix and groundwater. Under equilibrium conditions, each phase contains a fraction of the total contaminant mass present in the system (i.e., total of both phases equals 100 percent of the contaminant mass present). The relative mass fractions are determined by the properties of each contaminant and by the nature of the soil matrix. Equilibrium conditions may be disturbed by phenomena such as migration of contaminated groundwater or soil vapor into an area, or removal of contaminant mass from one of the media through degradation processes or gravity flow. Under these circumstances, concentration gradients are created resulting in the occurrence of mass transfer between the media.

The contaminant mass sorbed onto the soil matrix is essentially immobile. The exception is the mass in the topmost soil layer, which can be transported by processes capable of moving soil particles (wind, surface water runoff). However, since soil within most of the site area is not exposed due to covers such as pavement, sidewalks and buildings, this is not a significant transport pathway. Sorbed contaminants generally act as a source for the dissolved and gas phases.

Transport of contaminants dissolved in the soil moisture in the unsaturated zone is generally limited as a result of very low flow rates in the absence of full saturation. The only significant mechanisms may be driven by water level fluctuations (such as tidal influences and groundwater levels impacted by recovery wells on nearby properties under remediation) and gravity-driven downward flow during wet-weather periods, or possibly sewer lines which may be leaking and/or act as preferential pathways. Such vertical transport of contaminants acts as a source for the saturated zone below.

The contaminant mass contained within the soil vapor and within groundwater in the saturated zone is more mobile. Soil vapor can migrate in both vertical and horizontal directions in response to pressure gradients. The migration can create a discharge of contaminants into the atmosphere or building basements, or act as a source of contamination for groundwater in the saturated zone. Migrating soil vapor may transfer mass into the soil matrix and soil moisture in previously uncontaminated areas, thus increasing the areal extent of soil contamination in the unsaturated zone.

The primary transport mechanisms for contaminants dissolved in groundwater are advection and dispersion. Advection is the movement of the dissolved contaminants carried by the flow of groundwater. Dispersion refers to dissolved contaminants spreading due to the presence of non-uniformities as the groundwater flow field. Dispersion results in a general widening of a plume, as well in smearing of the plume boundaries. The magnitude of dispersion is site specific and is generally difficult to measure. Processes similar to those that occur for soil vapor can enable dissolved contaminants to reach a previously uncontaminated area and enter other environmental media.

Contamination migrating with soil vapor or groundwater constantly interacts with the soil matrix. The driving forces behind this process are created by concentration gradients between different phases and the properties of the contamination and the soil matrix. Contaminant mass may either sorb from the mobile soil vapor or groundwater onto the soil particles or it may undergo a reverse process of desorption.

In the case of sorption, contaminant mass is transferred from the mobile medium into the immobile soil medium. This phenomenon tends to decrease the velocity of contaminant migration, and is consequently referred to as retardation. The magnitude of the retardation depends on the properties of each contaminant and the soil matrix. The key indicator parameter for the retardation properties of the soil is the organic carbon content. Site-specific organic content measurements of soil are proposed during the next phase of the RI. Soils with high organic carbon content sorb dissolved contaminants more readily and create a more significant retardation effect than soil with limited, or no organic carbon content. Desorption is the reverse process. Contamination is transferred from the soil matrix into the groundwater or soil vapor. As a result, soil containing contaminant mass may act as a

source if exposed to the less-contaminated soil vapor or groundwater. Desorption from soil into the soil vapor or groundwater is increasingly inhibited by increasing content of organic carbon in the soil.

5.1.2 Mass Destruction Processes

In the urban environment of the Spic and Span Site, contaminant mass in the soil is not exposed at the ground surface. Contaminant mass contained within the saturated zone is not exposed to sunlight or the atmosphere. Therefore, abiotic mass destruction processes that rely on the presence of air or exposure to sunlight (such as hydrolysis and photolysis) have little impact within the subsurface and will not be discussed further.

The most significant mass destruction process that takes place in subsurface environments is microbial degradation. The most significant microbial degradation processes for organic contaminants that operate in groundwater systems are: biological oxidation (aerobic and anaerobic); reductive dechlorination; and cometabolic degradation. During degradation, organic compounds are transformed into daughter forms, which may be recalcitrant or further degradable. Daughter compounds can be either more or less toxic than the parent compounds. If a contaminant degrades into a sequence of degradable daughter compounds, it is ultimately fully metabolized into such compounds as carbon dioxide, methane, water, and chloride. Contaminants at the Spic and Span Site, PCE and TCE, degrade to dichloroethene (1,2-DCE) and vinyl chloride (VC), as shown on Figure 5-1. Ultimately, PCE and TCE metabolize into carbon dioxide, and ethane.

5.2 Fate and Transport of Site Contaminants

5.2.1 Contaminants of Concern

Contaminants of concern identified at the site belong to the group of volatile organic compounds (VOCs). The VOCs (PCE, TCE) detected in the onsite soil, soil gas and groundwater are predominantly chlorinated hydrocarbons. Other VOCs, such as toluene (a BTEX compound), were also detected. However, the detections of other VOCs were localized and the concentrations were orders-of-magnitude lower than those of chlorinated compounds.

5.3.2 Properties

VOCs, including PCE, TCE, and 1,2-DCE, are generally moderately to highly soluble in water. They readily volatilize into the atmosphere or soil gas. At the surface, VOCs generally decay under the action of sunlight and upon the exposure to the atmosphere. Dissolved VOCs are transported by advection and dispersion in groundwater. The same processes of advection and dispersion are responsible for the migration of VOCs in the atmosphere or the soil gas. These compounds have low to moderate organic carbon-to-water portioning coefficients and do not readily partition into the soil, making them relatively mobile in the environment.

In the subsurface environment, chlorinated VOCs, including PCE, TCE and 1,2-DCE, undergo reductive dechlorination under anaerobic conditions but are typically recalcitrant under aerobic conditions. BTEX compounds are relatively degradable under aerobic conditions and also degrade under anaerobic conditions, albeit at slower rates.

5.3.3 Source(s) of Contamination

In the past, the Spic and Span site was utilized as a dry cleaner facility. PCE is the main ingredient of the solvent used in dry cleaning. The original source of the PCE contamination is likely to be leakage from any storage tanks, drains which may have been used for disposal, and/or spills occurring during handling. An apparent additional source of PCE has been identified as part of the Phase I RI adjacent to 300 Kingsland Avenue. The horizontal and vertical extent of this source has not yet been delineated. However, the mechanism by which the source(s) act on the environment can be described based on the known factors, such as the nature of the chlorinated solvents and the observed distribution and level of the soil and ground water contamination.

Following the release of PCE, it migrates downward under the influence of gravity as a separate-phase liquid proceeding through the unsaturated zone. However, PCE is heavier than water and the downward migration continues after the spill reaches the saturated zone. During the migration, the total mass of PCE present in a flowable form is continuously depleted by the process of absorption within the soil. The migrating front leaves behind a zone where soil contains PCE in the form of separate-phase ganglia, immobilized between the soil particles and held in place by surface

forces. If the PCE liquid encounters an impermeable barrier, such as a clayey silt layer, it comes to rest on the surface of the barrier in the form of pools. However, if no such barrier is present and the aquifer is thick, all of the PCE mass is eventually absorbed and immobilized within the soil. The results from the DNAPL sample collected from monitoring well DEC-024D during the Phase V investigation shows PCE at a concentration 730,000 mg/kg or 73% and TCE at 720 mg/kg (0.072%)

The zone of PCE ganglia and the liquid pools (if present) form the source of contamination within the aquifer. PCE constantly dissolves in ground water (saturated zone) and soil gas (unsaturated zone), initiating mass transfer and destruction processes described in Section 5.1.2.

5.3.4 Fate and Transport in the Unsaturated Zone

5.3.4.1 Migration

The propagation of contaminants in the unsaturated zone is dominated by two processes: migration of the dissolved phase into infiltrating precipitation and migration of the volatilized contaminants in the soil gas. Migration of the contamination adsorbed into soil with the fugitive dust emissions or surface runoff will generally not be an issue at this Site.

Most of the soil at the site is located under a relatively impervious cover (either pavement or buildings). DIs which lead to the storm sewers are present along the roadways. Infiltration from precipitation across the site area is limited to the cracks and joints of the pavement and concrete surfaces. Therefore, the extent of the infiltration-induced migration is likely to be limited. The process is of little significance in the overall balance of mass transfer occurring at the site.

Contaminants of concern enter the soil gas through the process of volatilization. The site is almost entirely paved, and the thickness of the unsaturated zone is high. Therefore, the sources of contamination are not in close contact with the atmosphere. As a result, the lateral migration of the gas phase of the contamination is likely to be significant. Separated from the direct contact with the atmosphere, the soil gas will tend to migrate laterally, possibly at great distances, and seek discharge points at discrete locations, such as basements or underground sewer pipes.

The site contains virtually little unvegetated and unpaved areas. Therefore, it does not generate fugitive dust emissions. Likewise, the erosion and transport of surface soils by runoff is very limited. Contamination adsorbed into soils is unlikely to migrate via the pathways of dust emissions or runoff transport.

5.3.4.2 Degradation

Generally, the occurrence and rates of unsaturated zone degradation have to be determined by means of field studies, such as, for example, respiration tests. However, this is only appropriate for contaminants that can be aerobically degraded. PCE is not readily aerobically degradable. Rates of biological degradation depend largely on the presence of water. In the unsaturated zone, sufficient water may not be present continuously, thus limiting the potential for the growth of microorganisms.

The Site area is mostly paved. The unsaturated zone is not exposed to the action of sunlight and high temperature in the summer. Therefore, rates of abiotic degradation are likely to be very low, even in the top-most layers. In general, rates of contaminant degradation in the unsaturated zone are expected to be relatively low, although PCE degradation to TCE is apparent in soil sample SSB-08 (at 0.5-1-foot bgs) is indicated in Section 4.1.

5.3.5 Fate and Transport in the Saturated Zone

5.3.5.1 Migration

Migration in the saturated zone takes place predominantly by means of the transport of the dissolved-phase contamination in groundwater. The dominant factors are the direction of the flow within the aquifer, the hydraulic gradient, the hydraulic conductivity of the aquifer material (both the average value and spatial distribution) and the chemical composition of the soil matrix.

The site is located within the Upper Glacial Aquifer. The aquifer is characterized by high hydraulic conductivity and low gradients but vary locally due to the ongoing pumping well network associated with the Off-Site Product Recovery System. Locally, the average hydraulic conductivity has been estimated to be on the order of 10^{-3} cm/s within the sand units, and $10^{-4}/10^{-5}$ in the sandy silt

unit. The flow direction appears to be to the north and northeast, with hydraulic gradient generally on the order of 0.002 ft/ft with greater gradients (up to 0.084 ft/ft) in the immediate vicinity of the Site.

The extent of the plume has not been determined. The horizontal extent in shallow groundwater appears to originate around the Spic and Span Site, and a second, as yet unknown source has been identified around DEC-025D near 300 Kingsland Avenue.

5.3.5.2 Degradation

Compounds detected at the site are potentially degradable in ground water. The bulk of the contamination is present as chlorinated hydrocarbons, especially PCE. The predominant mechanism for the degradation of these compounds is the reductive dechlorination. The likelihood of the occurrence of this pathway can be assessed using the following indicators (after the *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water*, USEPA 1998):

pH - The pH of groundwater has an effect on the presence and activity of microbial populations. Generally, microorganisms that are most efficient biodegraders prefer neutral pH values (6 to 8). The range of values allowing the reductive dechlorination to occur is between 5 and 9.

Dissolved Oxygen - Dissolved oxygen is the most favored electron acceptor in biodegradation of hydrocarbons. Levels of less than 1 mg/L indicate that aerobic degradation has occurred, oxygen has been largely utilized, and a shift to anaerobic processes is taking place. Reductive dechlorination takes place under anaerobic conditions, generally when the dissolved oxygen levels are less than 0.5 mg/L. Typically, the anaerobic environment is created by the degradation of non-chlorinated compounds, such as BTEX. Following that, the likelihood of degradation of chlorinated hydrocarbons becomes high.

Ferrous Iron - Iron-reducing conditions are favorable to the process of reductive dechlorination. Concentrations of ferrous iron higher than 1 mg/L suggest iron reduction is occurring, and thus oxidation/reduction (redox) conditions are suitable for reductive dechlorination.

Oxidation/Reduction Potential - Reductive dechlorination becomes possible at levels of less than approximately 50 mV. The likelihood of its occurrence is significant for the ORP values less than -100 mV.

Organic Carbon - Organic carbon, either naturally occurring or anthropogenic, typically serves as the electron donor required to drive the dechlorination process. Levels above 20 mg/L are favorable.

Chloride - Chloride levels two times higher than background may indicate that the compound has been produced as a byproduct of dechlorination. Typically, the high chloride levels occur within the downgradient portion of the plume.

Distribution of Chlorinated Species - Significant degradation of the chlorinated solvents is marked by a shift in the relative concentrations of various compounds. As the degradation progresses, the original compound released into the environment breaks down into the daughter product, where successively more chloride atoms are removed from the compound molecule and replaced with hydrogen. In this case, PCE would shift to TCE, then to DCE and finally to VC. Vinyl chloride is difficult to dechlorinate further (requires very strong reducing conditions), but is readily oxidized under aerobic conditions.

A detailed evaluation of natural attenuation and assessment of the horizontal and vertical distribution of the chlorinated solvents in groundwater will be conducted as part of the Phase II RI. A general discussion on the overall plume behavior is included below based on available information.

5.3.5.3 Overall Plume Behavior

Based upon the observed concentrations of VOCs from the latest groundwater sampling event, the dissolved chlorinated solvent plume appears to originate at the Spic and Span Site, and an additional unknown apparent source is present adjacent to 300 Kingsland Avenue. In the shallow groundwater regime, it appears that the chlorinated solvent plume has higher concentrations of PCE immediately north and east of the Spic and Span Site, and is more discrete compared to the deeper groundwater regime. In the deeper groundwater regime, the complete horizontal and vertical extent of the chlorinated solvents has not been delineated. The dissolved chlorinated solvent plume in the

deeper groundwater regime appears to be impacted by both sources of PCE contamination and is spreading with groundwater movement towards the northeast, east and with a southerly component, and also via downward migration to deeper geologic zones. The full impact and effects of the Exxon-Mobil extraction wells on the migration and distribution of the chlorinated solvent plume has not yet been determined. A detailed assessment of the effects will be completed after the horizontal and vertical extent of the chlorinated solvent plume has been completely delineated.

6.0 QUALITATIVE HUMAN HEALTH RISK ASSESSMENT AND FISH AND WILDLIFE ASSESSMENT

This section will present the Qualitative Human Health Exposure Assessment (HHEA) and the Fish and Wildlife Assessment (FIWA) for the site. This qualitative HHEA uses data and information collected during the Phase I through Phase V site characterization investigations and this remedial investigation to assess human health exposure in the immediate and surrounding areas. The qualitative HHEA provides an evaluation of potential adverse health effects under current and potential future site conditions that may result from exposure to contaminants attributable to former activities at the site.

6.1 Qualitative Human Health Risk Assessment

This qualitative HHEA follows the general format and procedures set forth in the United States Environmental Protection Agency's (USEPA's) Risk Assessment Guidance for Superfund (RAGS) (USEPA 1997a). As such, it includes three of the four required components (the fourth component, Risk Characterization, is not included because this assessment is qualitative), which are presented in the following subsections.

- Identification of Contaminants of Potential Concern
- Exposure Assessment
- Toxicity Assessment.

This section will be completed after the Phase II RI is completed.

6.2 Fish and Wildlife Exposure Assessment

The NYSDEC Division of Fish and Wildlife & Marine Resources New York Natural Heritage Program was contacted regarding the Spic and Span Cleaners site. In their response, provided in Appendix Q, the NYSDEC indicated that:

> "We have no records of rare or state-listed animals or plants, significant natural communities or other significant habitats, on or in the immediate vicinity of your site."

7.0 SUMMARY AND RECOMMENDATIONS

7.1 Summary

- The sand unit is present at the majority of boring locations and is represented by stratified sands of varying textures containing some to no fines. The entire thickness of the sand unit has not been penetrated; however, it was found to be approximately 50 feet thick at location DEC-054. The discontinuous glacial till unit was noted in borings and consists of a heterogeneous mixture of sand, silt, and clay and varying amounts of gravel, cobbles and boulders. The discontinuous clayey silt unit has been observed from the ground surface, as an inclusive unit within the sand unit, and at depth, and has been observed in most of the borings at the site. The thickness of the clayey silt unit, where present, varies from 0.5 to over 20 feet thick.

- The water table surface may be found between approximately 11 and 25 feet bgs. In the immediate vicinity of the Spic and Span property, the groundwater flow is north to northeast. The horizontal hydraulic gradient is approximately 0.02 foot per foot (ft/ft).

- The hydraulic conductivity in the overburden ranged from 2.91×10^{-2} cm/sec (DEC-063S) to 8.32×10^{-5} cm/sec (DEC-060S). In the shallow overburden, the mean value of K is 8.03×10^{-3} cm/sec for the sand clayey silt/sand unit, and 3.15×10^{-4} for the sandy silt. In the deep overburden, the mean value of K is 1×10^{-3} for the sand/silty sand, and 9.32×10^{-5} for the sandy silt.

- During the Phase V investigation in 2009, LNAPL was detected in DEC-034 and DEC-054 with a thickness of 1.34 and 1.09 feet, respectively. During the RI in 2011, the thickness of LNAPL was observed from 0.0 to 3.99 feet in DEC-034; from 0.01 to 1.2 feet in DEC-054; and from 0.58 to 0.84 feet in DEC-053.

- During the Phase V investigation in 2009, a 1.5-foot thickness of DNAPL was observed in DEC-024D. During the RI in 2011, DNAPL was detected, but not in measureable quantities, in both DEC-024D and DEC-024DR.

- Based upon the observed concentrations of VOCs from the latest groundwater sampling event, the dissolved chlorinated solvent plume appears to originate at the Spic and Span Site, and an additional unknown apparent source is present adjacent to 300 Kingsland Avenue. In the shallow groundwater regime, it appears that the chlorinated solvent plume has higher concentrations of PCE immediately north and east of the Spic and Span Site, and is more discrete compared to the deeper groundwater regime. In the deeper groundwater regime, the complete horizontal and vertical extent of the chlorinated solvents has not been delineated. The dissolved chlorinated solvent plume in the deeper groundwater regime appears to be impacted by both sources of PCE contamination and is spreading with groundwater movement towards the northeast, east and with a southerly component, and also via downward migration to deeper geologic zones.

7.2 Recommendations

The following recommendations are offered for consideration by the NYSDEC. The recommendations include additional Remedial Investigation/Feasibility Study (RI/FS) activities.

- One shallow monitoring well should be installed at the location shown on Plate 1 (i.e., PW-1S). This well will assist in determining the extent of the PCE impacted shallow groundwater between existing wells DEC-036 and DEC-061. The shallow well should be constructed with a 15-foot long PVC screen and PVC riser.

- Four deep monitoring wells should be installed at the locations shown on Plate 1 (i.e., PW-1D, PW-2D, DEC-003DD, DEC-034D). These wells will further assist in determining the horizontal impacts of PCE and TCE in the deeper groundwater regime in the area north, south and east of the Spic and Span property, and the new suspected source. The deep wells will also assist in determining the potential presence of DNAPL if the clayey silt unit, as was found at DEC-024D, is encountered. The deep wells should be advanced approximately 35 feet below the bottom of the existing shallow well at each

location or to the top of a less permeable unit (i.e., glacial till and or clayey silt unit). Split spoon samples should be collected continuously from the bottom of the existing borings (e.g., starting at approximately 35 feet bgs), or from the top of the clayey silt unit. The deep wells should be constructed with a 10-foot long stainless steel screen equipped with a 2-foot sump and stainless steel riser. Stainless steel has been recommended due to the possible presence of DNAPL and the incompatibility between PCE and/or TCE and PVC materials.

- Three top of clay wells should be installed at the locations shown on Plate 1 (i.e., DEC-058TC, DEC-062TC, and DEC-063TC) to determine the vertical extent of PCE and TCE impacted groundwater. The top of clay wells should be advanced to the top of the Raritan Formation, which is anticipated to be between approximately -47 and -71 feet amsl. Split spoon samples should be collected continuously from the bottom of the existing borings to the top of the Raritan Formation. The wells should be constructed with a 10-foot long stainless steel screen equipped with a 2-foot sump, 10 feet of stainless steel riser above the screen and PVC riser the remainder of the well string. A stainless steel screen has been recommended due to the incompatibility between PCE and/or TCE and PVC materials. The recommendation for using stainless steel was based on the increasing concentrations of PCE and TCE with depth and the possibility of DNAPL being encountered at the top of the Raritan Formation.

- Up to two soil samples should be collected from each boring location: one soil sample from the interval just above water table; and the second sample from the interval exhibiting odors, staining, or the highest PID reading. If no odors, staining, or elevated PID reading are encountered, then only one sample from the interval just above the water table should be collected, as per the Field Analysis Plan (URS, April 2010). All soil samples should be analyzed for TCL VOCs plus TICs by 8260B.

- At least one sample from each stratigraphic layer should be collected and analyzed from a minimum of two borings for TCL VOCs plus TICS by 8260B, TCL SVOCs plus TICs by 8270C, TCL pesticides/PCBs by 8081A/8082, herbicides by 8151A, TAL metals by 6010B/7471A, hexavalent chromium by 7196A, cyanide by 9010B/9012A, and TOC by Lloyd Khan.

- If DNAPL is encountered in any new monitoring well(s) during drilling, well development or purging, a DNAPL sample should be collected for laboratory analyses. The DNAPL sample(s) should be analyzed for TCL VOCs plus TICs by 8260B, TCL SVOCs plus TICs by 8270C, petroleum hydrocarbon scan by 8100 (modified) and specific gravity by ASTM D4052.

- A complete round of groundwater samples should be collected from all new and existing DEC wells sampled during the RI Phase 1. The groundwater samples should be analyzed for TCL VOCs plus TICs by 8260B, alkalinity by 2320B, chloride, total kjeldahl nitrogen by 351.2, phosphorous by 365, nitrate, sulfate and sulfide by 300.0, and ferrous iron (field parameter). Prior to the start of groundwater sampling, a synoptic round of water levels should be collected from all DEC wells located north of Nassau Avenue.

- During slug testing of DEC-036D, the water level was not allowed to fully recover to a static level. Tests were analyzed, but are considered invalid. This monitoring well will be re-tested.

- For characterization of potential discharge water, up to 5 monitoring wells located within or in the vicinity of the highest concentrations of contaminants should be analyzed for VOCs by 624, SVOCs by 625, PCBs by 608, cadmium, copper, lead, nickel, and zinc by 6010B, mercury by 7470A, flashpoint by 1010, total dissolved solids by 2540C, chloride, nitrate and nitrite by 300.0, total kjedahl nitrogen by 351.2, CBOD by 5210B, hexavalent chromium by 7196A, Total Petroleum Hydrocarbons by 1664, Total Suspended Solids by 2540D and pH by 150.1 (effluent parameters for sewer discharge).

- If LNAPL is encountered in monitoring wells selected for sampling, a groundwater sample should be collected from the well using one of the procedures outlined below. LNAPL was previously encountered in DEC-034, DEC-054, MW-084R and MW-086. Gauge the thickness of the LNAPL. Using a capped tremie pipe, lower the capped end of the pipe into the well to a depth at least 1 foot below the LNAPL layer. Secure the tremie pipe to limit movement. Push out the cap through the tremie pipe to allow the sample tubing to be lowered to the desired sampling depth without coming into contact with the LNAPL. The cap should be attached to the tremie pipe for retrieval. Purge and sample the groundwater in accordance with the procedures outlined in the FAP. Alternatively, a

discrete interval sampler (i.e., Solinst Model 425) which also prevents the groundwater sample from coming in contact with LNAPL can be used.

- A DNAPL gauging event should be performed at all existing and new deep and top of clay wells to determine if there is evidence of DNAPL and to measure the thickness in each well, if present.
- Replace flush-mount protective casing and well pads at DEC-010, DEC-031 and DEC-031D.
- Install up to 14 additional soil vapor implants at the locations shown on Plate 2. These locations will further assist in determining the horizontal impacts of PCE and TCE in the areas north, south and east of the Spic and Span property, the as yet to be determined source, and the area near the intersection of Nassau and Morgan Avenues. The soil gas implants in the area of Kingsland Avenue, Norman Avenue and Sutton Street should be set at a depth of 4-6 feet bgs to reduce the likelihood that shallow groundwater is impacting sample collection. At least one soil sample should be collected from each boring location from the interval exhibiting odors, staining, or the highest PID reading. If no odors, staining, or elevated PID reading are encountered, then only one sample from the interval just above the water table should be collected, as per the FAP. All soil samples should be analyzed for TCL VOCs plus TICs by 8260B.
- A complete round of soil gas samples should be collected from all new and existing DEC soil gas implants sampled during the RI Phase 1. The soil gas samples should be analyzed for VOCs by TO-15, as per the FAP.
- Remobilization for Phase 2 RI field work should be in early Fall 2011.

8.0 REFERENCES

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TABLES

TABLE 2-1
GROUNDWATER ELEVATION MEASUREMENTS
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID / Type	Northing	Easting	Ground Elevation (ft)	Casing Elevation (ft)	Meas.point (Riser)Elev.(ft)	Geol. Zone	Specific Gravity	Date / Time	Depth to Water (ft)	Water Elev. (ft)	LNAPL (ft)*	DNAPL (ft)*	Corrected Water Elev. (ft)	Remark
DEC-001	204140.0983	1000916.464	26.52	26.52	26.22	A								
								6/29/2007 1220	21.80	4.42	0.00	0.00		
								9/11/2007 0000	22.07	4.15	0.00	0.00		
								12/18/2007 0000	23.20	3.02	0.00	0.00		
								7/14/2008 0710	23.06	3.16	0.00	0.00		
								2/24/2011 1345	17.91	8.31	0.00	0.00		
								3/2/2011 0735	17.52	8.70	0.00	0.00		
								3/21/2011 1250	17.22	9.00	0.00	0.00		
DEC-002	203842.4998	1000645.55	26.32	26.32	25.58	A								
								6/29/2007 1220	13.29	12.29	0.00	0.00		
								9/11/2007 0000	13.25	12.33	0.00	0.00		
								12/18/2007 0000	13.73	11.85	0.00	0.00		
								7/14/2008 0735	13.37	12.21	0.00	0.00		
								2/24/2011 1252	12.29	13.29	0.00	0.00		
								3/2/2011 0745	12.38	13.20	0.00	0.00		
								3/21/2011 1035	12.59	12.99	0.00	0.00		
DEC-003	204106.3738	1000607.75	24.21	24.21	23.61	A								
								6/29/2007 1100	17.08	6.53	0.00	0.00		
								9/11/2007 0000	17.04	6.57	0.00	0.00		
								12/18/2007 0000	18.00	5.61	0.00	0.00		
								7/14/2008 0730	18.17	5.44	0.00	0.00		
								2/24/2011 1300	18.64	4.97	0.00	0.00		
								3/2/2011 0750	18.71	4.90	0.00	0.00		
								3/21/2011 1140	18.81	4.80	0.00	0.00		
DEC-003D	204115.487	1000605.8885	24.11	24.11	23.84	A								
								7/14/2008 0725	19.05	4.79	0.00	0.00		
								2/24/2011 1304	20.96	2.88	0.00	0.00		
								3/2/2011 0753	20.93	2.91	0.00	0.00		
								3/21/2011 1145	20.69	3.15	0.00	0.00		

NM - No Measurement

*** - Represents Thickness**

The value noted in the column labeled Specific Gravity is an assumed value for free product, if found.

Geologic Zone:
A Shallow Unconfined Aquifer

NP - Product thickness was not determined.
Time 0000 - The time of each depth to water measurement was not recorded in the field, therfore the default value 0000 was used.
The June 2007 measurements were obtained from purge logs. The water levels were re-measured on September 11, 2007.

TABLE 2-1
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FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID / Type	Northing	Easting	Ground Elevation (ft)	Casing Elevation (ft)	Meas.point (Riser)Elev.(ft)	Geol. Zone	Specific Gravity	Date / Time	Depth to Water (ft)	Water Elev. (ft)	LNAPL (ft)*	DNAPL (ft)*	Corrected Water Elev. (ft)	Remark
DEC-023	204375.1455	1000204.242	18.16	18.16	18.07	A								
								12/18/2007 0000	12.91	5.16	0.00	0.00		
								7/14/2008 0815	12.53	5.54	0.00	0.00		
								7/7/2009 0815	12.28	5.79	0.00	0.00		
								2/24/2011 1222	13.32	4.75	0.00	0.00		
								3/2/2011 0926	13.22	4.85	0.00	0.00		
								3/21/2011 1025	12.99	5.08	0.00	0.00		
DEC-023D	204374.3426	1000197.5738	18.20	18.20	17.77	A								
								7/7/2009 0810	12.04	5.73	0.00	0.00		
								2/24/2011 1222	13.08	4.69	0.00	0.00		
								3/2/2011 0928	12.98	4.79	0.00	0.00		
								3/21/2011 1021	12.80	4.97	0.00	0.00		
DEC-024	204298.8381	1000312.14	20.55	20.55	20.36	A								
								12/18/2007 0000	14.94	5.42	0.00	0.00		
								7/14/2008 0800	14.77	5.59	0.00	0.00		
								7/7/2009 0852	14.45	5.91	0.00	0.00		
								2/24/2011 1018	15.33	5.03	0.00	0.00		
								3/2/2011 0850	15.47	4.89	0.00	0.00		Slight fuel odor
								3/21/2011 1050	15.24	5.12	0.00	0.00		
DEC-024D	204313.2507	1000310.3686	20.22	20.22	19.97	A								
								7/14/2008 0800	15.50	4.47	0.00	0.00		
								6/22/2009 0000	NM	-	NM	1.5	-	1.5' DNAPL
								7/7/2009 0855	14.37	5.60	0.00	0.00		
								2/24/2011 1014	15.57	4.40	0.00	0.00		Odd chemical odor
								3/2/2011 0852	15.20	4.77	0.00	0.00		
								3/21/2011 1056	15.18	4.79	0.00	0.00		
DEC-024DR	204320.8853	1000309.9175	20.16	20.16	19.53	A								
								7/7/2009 0900	14.11	5.42	0.00	0.00		

NM - No Measurement

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Geologic Zone:
A Shallow Unconfined Aquifer

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Time 0000 - The time of each depth to water measurement was not recorded in the field, therfore the default value 0000 was used.
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FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

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								2/24/2011 1030	14.79	4.74	0.00	0.00		Odd chemical odor, slight stain on string, DNAPL at 52.31'
								3/2/2011 0900	14.69	4.84	0.00	0.00		
								3/21/2011 1101	14.59	4.94	0.00	0.00		
DEC-025	204145.9895	1000387.618	21.62	21.62	21.41	A								
								12/18/2007 0000	15.75	5.66	0.00	0.00		
								7/14/2008 0750	15.61	5.80	0.00	0.00		
								7/7/2009 0840	15.35	6.06	0.00	0.00		
								2/24/2011 0758	16.48	4.93	0.00	0.00		
								3/2/2011 0830	16.34	5.07	0.00	0.00		
								3/21/2011 1325	16.27	5.14	0.00	0.00		
DEC-025D	204141.28	1000390.13	21.76	21.76	20.92	A								
								2/24/2011 0745	15.88	5.04	0.00	0.00		
								3/2/2011 0833	15.77	5.15	0.00	0.00		
								3/21/2011 1320	15.59	5.33	0.00	0.00		
DEC-034	204411.5241	1000461.3579	19.92	19.92	19.84	A	0.8218							
								7/14/2008 0805	14.61	5.23	0.00	0.00	5.23	
								7/7/2009 0825	15.79	4.05	1.34	0.00	5.15	Properties like gasoline
								2/24/2011 1330	15.52	4.32	0.01	0.00	4.33	Weathered gasoline odor, estimate 0.01 to 0.03 LNAPL thickness
								3/2/2011 1024	15.40	4.44	0.00	0.00	4.44	Trace LNAPL
								3/9/2011 1400	19.17	0.67	3.83	0.00	3.82	
								3/21/2011 0725	19.07	0.77	3.99	0.00	4.05	LNAPL measured as 4.10 feet thick using Kolor Kut Tape on 3/22/11.
DEC-035	204292.5254	1000097.2809	17.31	17.31	17.13	A								
								7/14/2008 0817	11.58	5.55	0.00	0.00		
								7/7/2009 0800	11.34	5.79	0.00	0.00		
								2/24/2011 1206	12.37	4.76	0.00	0.00		

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Geologic Zone:
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								3/2/2011 0940	12.28	4.85	0.00	0.00		
								3/21/2011 1150	12.14	4.99	0.00	0.00		
DEC-035D	204300.6409	1000099.8637	17.46	17.46	16.92	A								
								7/7/2009 0754	11.10	5.82	0.00	0.00		
								2/24/2011 1206	12.08	4.84	0.00	0.00		
								3/2/2011 0942	12.00	4.92	0.00	0.00		
								3/21/2011 1153	11.76	5.16	0.00	0.00		
DEC-036	204319.2581	1000367.9504	20.17	20.17	19.92	A								
								7/14/2008 0802	15.36	4.56	0.00	0.00		
								7/7/2009 0835	15.38	4.54	0.00	0.00		
								2/24/2011 0820	16.88	3.04	0.00	0.00		
								3/2/2011 0817	16.75	3.17	0.00	0.00		
								3/21/2011 0700	16.63	3.29	0.00	0.00		
DEC-036D	204314.83	1000368.16	20.21	20.21	19.28	A								
								2/24/2011 0830	16.80	2.48	0.00	0.00		
								3/2/2011 0818	16.62	2.66	0.00	0.00		
								3/21/2011 0705	17.29	1.99	0.00	0.00		
DEC-037	204354.5485	1000583.7241	21.70	21.70	21.32	A								
								7/14/2008 0720	15.99	5.33	0.00	0.00		
								2/24/2011 1320	17.55	3.77	0.00	0.00		
								3/2/2011 0805	17.48	3.84	0.00	0.00		
								3/21/2011 1006	17.28	4.04	0.00	0.00		
DEC-038	203957.772	1000411.4377	23.30	23.30	22.83	A								
								7/14/2008 0745	16.85	5.98	0.00	0.00		
								2/24/2011 1250	17.74	5.09	0.00	0.00		
								3/2/2011 0837	17.64	5.19	0.00	0.00		
								3/21/2011 1305	17.36	5.47	0.00	0.00		
DEC-053	204683.1793	1000265.8451	18.02	18.02	17.52	A	0.7847							
								7/7/2009 0709	12.39	5.13	0.00	0.00	5.13	

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								2/24/2011 0920	14.05	3.47	0.61	0.00	3.95	Gasoline
								3/2/2011 1000	14.15	3.37	0.84	0.00	4.03	
								3/9/2011 0920	14.19	3.33	0.82	0.00	3.97	
								3/21/2011 0755	13.69	3.83	0.58	0.00	4.29	
DEC-053D	204686.4825	1000265.4657	17.93	17.93	17.55	A								
								7/7/2009 0700	12.46	5.09	0.00	0.00		
								2/24/2011 0925	13.67	3.88	0.00	0.00		
								3/2/2011 0957	13.56	3.99	0.00	0.00		
								3/21/2011 0750	13.32	4.23	0.00	0.00		
DEC-054	204547.1502	1000282.8605	18.67	18.67	18.00	A	0.8019							
								7/7/2009 0722	13.82	4.18	1.09	0.00	5.05	
								2/24/2011 0904	13.86	4.14	0.01	0.00	4.15	Gasoline odor
								3/2/2011 0950	14.65	3.35	0.85	0.00	4.03	
								3/9/2011 1155	14.99	3.01	1.20	0.00	3.97	
								3/21/2011 0745	14.59	3.41	1.04	0.00	4.24	
DEC-054D	204558.33	1000281.13	18.66	18.66	18.13	A								
								2/24/2011 0857	14.22	3.91	0.00	0.00		
								3/2/2011 0954	14.08	4.05	0.00	0.00		
								3/21/2011 0740	13.87	4.26	0.00	0.00		
DEC-055	204465.7282	1000078.7392	18.69	18.69	18.39	A								
								7/7/2009 0735	12.71	5.68	0.00	0.00		
								2/24/2011 1200	13.68	4.71	0.00	0.00		
								3/2/2011 0932	13.62	4.77	0.00	0.00		
								3/21/2011 1205	13.37	5.02	0.00	0.00		
DEC-055D	204470.7627	1000077.9071	18.83	18.83	18.37	A								
								7/7/2009 0740	12.73	5.64	0.00	0.00		
								2/24/2011 1150	13.75	4.62	0.00	0.00		
								3/2/2011 0934	13.68	4.69	0.00	0.00		
								3/21/2011 1200	13.43	4.94	0.00	0.00		

NM - No Measurement

*** - Represents Thickness**

The value noted in the column labeled Specific Gravity is an assumed value for free product, if found.

Geologic Zone:
A Shallow Unconfined Aquifer

NP - Product thickness was not determined.
Time 0000 - The time of each depth to water measurement was not recorded in the field, therfore the default value 0000 was used.
The June 2007 measurements were obtained from purge logs. The water levels were re-measured on September 11, 2007.

TABLE 2-1
GROUNDWATER ELEVATION MEASUREMENTS
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID / Type	Northing	Easting	Ground Elevation (ft)	Casing Elevation (ft)	Meas.point (Riser)Elev.(ft)	Geol. Zone	Specific Gravity	Date / Time	Depth to Water (ft)	Water Elev. (ft)	LNAPL (ft)*	DNAPL (ft)*	Corrected Water Elev. (ft)	Remark
DEC-056	204432.7389	1000181.1463	17.99	17.99	17.76	A								
								7/7/2009 0730	12.03	5.73	0.00	0.00		
								2/24/2011 1128	13.67	4.09	0.00	0.00		
								3/2/2011 0946	12.99	4.77	0.00	0.00		
								3/21/2011 1215	12.74	5.02	0.00	0.00		
DEC-057	204363.0211	1000306.5041	19.78	19.78	19.55	A								
								7/7/2009 0850	13.77	5.78	0.00	0.00		
								2/24/2011 1100	14.80	4.75	0.00	0.00		Slight chemical odor bottom 5" of string
								3/2/2011 0907	14.71	4.84	0.00	0.00		Gasoline odor
								3/21/2011 1125	14.48	5.07	0.00	0.00		
DEC-057D	204357.52	1000307.79	19.74	19.74	19.56	A								
								2/24/2011 1050	14.86	4.70	0.00	0.00		
								3/2/2011 0905	14.76	4.80	0.00	0.00		Solvent odor
								3/21/2011 1120	14.51	5.05	0.00	0.00		
DEC-058	204478.83	1000345.77	18.98	18.98	18.72	A								
								2/24/2011 0848	14.95	3.77	0.00	0.00		
								3/2/2011 1012	14.85	3.87	0.00	0.00		
								3/21/2011 0735	14.61	4.11	0.00	0.00		
DEC-058D	204468.99	1000347.1	18.97	18.97	18.62	A								
								2/24/2011 0848	17.53	1.09	0.00	0.00		
								3/2/2011 1014	17.34	1.28	0.00	0.00		
								3/21/2011 0730	17.09	1.53	0.00	0.00		
DEC-059	204384.88	1000281.98	19.14	19.14	18.7	A								
								2/24/2011 1122	13.60	5.10	0.00	0.00		
								3/2/2011 0919	13.51	5.19	0.00	0.00		
								3/21/2011 1130	13.27	5.43	0.00	0.00		
DEC-059D	204385.67	1000287.09	19.17	19.17	18.29	A								
								2/24/2011 1115	14.11	4.18	0.00	0.00		

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Time 0000 - The time of each depth to water measurement was not recorded in the field, therfore the default value 0000 was used.

The June 2007 measurements were obtained from purge logs. The water levels were re-measured on September 11, 2007.

TABLE 2-1
GROUNDWATER ELEVATION MEASUREMENTS
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID / Type	Northing	Easting	Ground Elevation (ft)	Casing Elevation (ft)	Meas.point (Riser)Elev.(ft)	Geol. Zone	Specific Gravity	Date / Time	Depth to Water (ft)	Water Elev. (ft)	LNAPL (ft)*	DNAPL (ft)*	Corrected Water Elev. (ft)	Remark
								3/2/2011 0921	13.92	4.37	0.00	0.00		
								3/21/2011 1135	13.68	4.61	0.00	0.00		
DEC-060	204378.88	1000360.66	19.53	19.53	19.29	A								
								2/24/2011 0845	15.53	3.76	0.00	0.00		
								3/2/2011 0815	15.43	3.86	0.00	0.00		
								3/21/2011 0715	15.10	4.19	0.00	0.00		
DEC-060D	204372.8	1000360.98	19.57	19.57	18.75	A								
								2/24/2011 0840	18.26	0.49	0.00	0.00		
								3/2/2011 0811	18.03	0.72	0.00	0.00		
								3/21/2011 0710	17.97	0.78	0.00	0.00		
DEC-061	204224.1	1000381.46	21.15	21.15	20.31	A								
								2/24/2011 0810	15.78	4.53	0.00	0.00		
								3/2/2011 0824	15.65	4.66	0.00	0.00		
								3/21/2011 1335	15.39	4.92	0.00	0.00		
DEC-061D	204217.66	1000382.32	21.28	21.28	20.91	A								
								2/24/2011 0805	17.29	3.62	0.00	0.00		
								3/2/2011 0826	17.11	3.80	0.00	0.00		
								3/21/2011 1330	17.13	3.78	0.00	0.00		
DEC-062	204241.83	1000591.06	23.13	23.13	22.9	A								
								2/24/2011 1316	19.89	3.01	0.00	0.00		
								3/2/2011 0758	19.85	3.05	0.00	0.00		
								3/21/2011 1016	19.66	3.24	0.00	0.00		
DEC-062D	204263.31	1000590.23	22.94	22.94	22.76	A								
								2/24/2011 1316	25.27	-2.51	0.00	0.00		
								3/2/2011 0800	25.07	-2.31	0.00	0.00		
								3/21/2011 1011	25.26	-2.50	0.00	0.00		
DEC-063	204201.16	1000326.22	21.19	21.19	20.65	A								
								2/24/2011 0000	15.72	4.93	0.00	0.00		

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TABLE 2-1
GROUNDWATER ELEVATION MEASUREMENTS
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID / Type	Northing	Easting	Ground Elevation (ft)	Casing Elevation (ft)	Meas.point (Riser)Elev.(ft)	Geol. Zone	Specific Gravity	Date / Time	Depth to Water (ft)	Water Elev. (ft)	LNAPL (ft)*	DNAPL (ft)*	Corrected Water Elev. (ft)	Remark
								3/2/2011 0845	15.61	5.04	0.00	0.00		
								3/21/2011 1046	15.37	5.28	0.00	0.00		
DEC-063D	204193.33	1000327.59	21.20	21.2	20.8	A								
								2/24/2011 0000	15.86	4.94	0.00	0.00		
								3/2/2011 0842	15.74	5.06	0.00	0.00		
								3/21/2011 1042	15.49	5.31	0.00	0.00		
MW-014	203848.1145	1000908.433	28.90	28.90	28.35	A								
								6/25/2007 1144	23.35	5.00	0.00	0.00		
								9/11/2007 0000	23.57	4.78	0.00	0.00		
								12/18/2007 0000	24.75	3.60	0.00	0.00		
								7/14/2008 0944	24.77	3.58	0.00	0.00		
MW-020	203305.994	1000975.371	30.37	30.37	30.00	A								
								6/25/2007 0925	14.83	15.17	0.00	0.00		
								9/11/2007 0000	14.19	15.81	0.00	0.00		
								12/18/2007 0000	16.23	13.77	0.00	0.00		
								7/14/2008 0924	15.84	14.16	0.00	0.00		
MW-081	204557.5172	1000063.9519	19.21	19.21	19.04	A								
								7/14/2008 1009	13.76	5.28	0.00	0.00		
								7/7/2009 1058	13.57	5.47	0.00	0.00		
MW-083	204512.0331	1000607.9077	20.33	20.33	20.09	A								
								7/14/2008 0958	15.50	4.59	0.00	0.00		
								7/7/2009 1027	1.96	18.13	0.00	0.00		Surface water infiltration
MW-084R	204823.5491	1000076.9515	17.85	17.85	17.55	A	0.83							
								7/7/2009 1100	13	4.55	1.00	0.00	5.38	Est. SG. Approx. 1' LNAPL
MW-085	204523.2189	1000363.0248	18.38	18.38	17.94	A								
								7/14/2008 1027	13.06	4.88	0.00	0.00		
								7/7/2009 1041	13.01	4.93	0.00	0.00		

NM - No Measurement

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Geologic Zone:
A Shallow Unconfined Aquifer

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Time 0000 - The time of each depth to water measurement was not recorded in the field, therfore the default value 0000 was used.
The June 2007 measurements were obtained from purge logs. The water levels were re-measured on September 11, 2007.

TABLE 2-1
GROUNDWATER ELEVATION MEASUREMENTS
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID / Type	Northing	Easting	Ground Elevation (ft)	Casing Elevation (ft)	Meas.point (Riser)Elev.(ft)	Geol. Zone	Specific Gravity	Date / Time	Depth to Water (ft)	Water Elev. (ft)	LNAPL (ft)*	DNAPL (ft)*	Corrected Water Elev. (ft)	Remark
MW-086	204798.6882	1000190.2619	18.23	18.23	17.89	A	0.83							
								7/7/2009 1117	14.16	3.73	1.63	0.00	5.08	Est. specific gravity (SG)
MW-087	204662.8383	1000345.3365	17.84	17.84	17.44	A								
								7/7/2009 1048	11.21	6.23	0.00	0.00		Surface water infiltration
MW-092	204195.777	1000863.514	25.56	25.56	25.56	A								
								6/25/2007 1055	19.05	6.51	0.00	0.00		
								9/11/2007 0000	19.50	6.06	0.00	0.00		
								12/18/2007 0000	20.33	5.23	0.00	0.00		
								7/14/2008 0949	20.31	5.25	0.00	0.00		
MW-095	204395.624	1000839.757	23.38	23.38	22.99	A								
								6/25/2007 1602	18.61	4.38	0.00	0.00		
								9/11/2007 0000	19.03	3.96	0.00	0.00		
								12/18/2007 0000	20.03	2.96	0.00	0.00		
								7/14/2008 0953	20.07	2.92	0.00	0.00		

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The June 2007 measurements were obtained from purge logs. The water levels were re-measured on September 11, 2007.

TABLE 2-2
SUMMARY OF PARAMETERS ANALYZED IN RI
FORMER SPIC AND SPAN CLEANERS & DYERS, INC. SITE

SOIL GAS PARAMETERS	SOIL PARAMETERS	GROUNDWATER PARAMETERS
Volatile Organics by TO-15	Volatile Organics by 8260B	Volatile Organics by 8260B
1,1,1-Trichloroethane	1,1,1-Trichloroethane	1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane
1,1,2-Trichloro-1,2,2-trifluoroethane	1,1,2-Trichloro-1,2,2-trifluoroethane	1,1,2-Trichloro-1,2,2-trifluoroethane
1,1,2-Trichloroethane	1,1,2-Trichloroethane	1,1,2-Trichloroethane
1,1-Dichloroethane	1,1-Dichloroethane	1,1-Dichloroethane
1,1-Dichloroethene	1,1-Dichloroethene	1,1-Dichloroethene
1,2,4-Trichlorobenzene	1,2,3-Trichlorobenzene	1,2,3-Trichlorobenzene
1,2,4-Trimethylbenzene	1,2,4-Trichlorobenzene	1,2,4-Trichlorobenzene
---	1,2-Dibromo-3-chloropropane	1,2-Dibromo-3-chloropropane
1,2-Dibromoethane (Ethylene dibromide)	1,2-Dibromoethane (Ethylene dibromide)	1,2-Dibromoethane (Ethylene dibromide)
1,2-Dichlorobenzene	1,2-Dichlorobenzene	1,2-Dichlorobenzene
1,2-Dichloroethane	1,2-Dichloroethane	1,2-Dichloroethane
1,2-Dichloroethene (cis)	1,2-Dichloroethene (cis)	1,2-Dichloroethene (cis)
1,2-Dichloroethene (trans)	1,2-Dichloroethene (trans)	1,2-Dichloroethene (trans)
1,2-Dichloropropane	1,2-Dichloropropane	1,2-Dichloropropane
1,3-Dichlorobenzene	1,3-Dichlorobenzene	1,3-Dichlorobenzene
1,3-Dichloropropene (cis)	1,3-Dichloropropene (cis)	1,3-Dichloropropene (cis)
1,3-Dichloropropene (trans)	1,3-Dichloropropene (trans)	1,3-Dichloropropene (trans)
1,4-Dichlorobenzene	1,4-Dichlorobenzene	1,4-Dichlorobenzene
1,4-Dioxane	1,4-Dioxane	1,4-Dioxane
2-Hexanone	2-Hexanone	2-Hexanone
4-Methyl-2-pentanone	4-Methyl-2-pentanone	4-Methyl-2-pentanone
Acetone	Acetone	Acetone
Benzene	Benzene	Benzene
---	Bromochloromethane	Bromochloromethane
Bromodichloromethane	Bromodichloromethane	Bromodichloromethane
Bromoform	Bromoform	Bromoform
Bromomethane	Bromomethane	Bromomethane
Carbon disulfide	Carbon disulfide	Carbon disulfide
Carbon tetrachloride	Carbon tetrachloride	Carbon tetrachloride
Chlorobenzene	Chlorobenzene	Chlorobenzene
Chloroethane	Chloroethane	Chloroethane
Chloroform	Chloroform	Chloroform
Chloromethane	Chloromethane	Chloromethane
Cyclohexane	Cyclohexane	Cyclohexane
Dibromochloromethane	Dibromochloromethane	Dibromochloromethane
Dichlorodifluoromethane	Dichlorodifluoromethane	Dichlorodifluoromethane
Ethylbenzene	Ethylbenzene	Ethylbenzene
Isopropylbenzene (Cumene)	Isopropylbenzene (Cumene)	Isopropylbenzene (Cumene)
---	Methyl acetate	Methyl acetate
Methyl ethyl ketone (2-Butanone)	Methyl ethyl ketone (2-Butanone)	Methyl ethyl ketone (2-Butanone)
Methyl tert-butyl ether	Methyl tert-butyl ether	Methyl tert-butyl ether
---	Methylcyclohexane	Methylcyclohexane
Methylene chloride	Methylene chloride	Methylene chloride
Styrene	Styrene	Styrene
Tetrachloroethene	Tetrachloroethene	Tetrachloroethene
Toluene	Toluene	Toluene
Trichloroethene	Trichloroethene	Trichloroethene
Trichlorofluoromethane	Trichlorofluoromethane	Trichlorofluoromethane
Vinyl chloride	Vinyl chloride	Vinyl chloride
Xylene (total)	Xylene (total)	Xylene (total)
1,2-Dichlorotetrafluoroethane	---	---
1,3,5-Trimethylbenzene (Mesitylene)	---	---
1,3-Butadiene	---	---
2,2,4-Trimethylpentane	---	---
Isopropyl alcohol	---	---
4-Ethyltoluene	---	---
Allyl chloride	---	---
Benzyl chloride	---	---
Ethanol	---	---
Heptane	---	---
Hexachlorobutadiene	---	---
n-Hexane	---	---
n-Propylbenzene	---	---
Tetrahydrofuran	---	---

TABLE 2-2
SUMMARY OF PARAMETERS ANALYZED IN RI
FORMER SPIC AND SPAN CLEANERS & DYERS, INC. SITE

NON AQUEOUS PHASE LIQUID PARAMETERS		
Volatile Organics by 8260B	Semivolatile Organics by 8270C	MISCELLANEOUS PARAMETERS
1,1,1-Trichloroethane	1,1-Biphenyl	Total Petroleum Hydrocarbons
1,1,2,2-Tetrachloroethane	2,2-oxybis(1-Chloropropane)	Specific Gravity
1,1,2-Trichloro-1,2,2-trifluoroethane	2,4,5-Trichlorophenol	
1,1,2-Trichloroethane	2,4,6-Trichlorophenol	
1,1-Dichloroethane	2,4-Dichlorophenol	
1,1-Dichloroethene	2,4-Dimethylphenol	
1,2,3-Trichlorobenzene	2,4-Dinitrophenol	
1,2,4-Trichlorobenzene	2,4-Dinitrotoluene	
1,2-Dibromo-3-chloropropane	2,6-Dinitrotoluene	
1,2-Dibromoethane (Ethylene dibromide)	2-Chloronaphthalene	
1,2-Dichlorobenzene	2-Chlorophenol	
1,2-Dichloroethane	2-Methylnaphthalene	
1,2-Dichloroethene (cis)	2-Methylphenol (o-cresol)	
1,2-Dichloroethene (trans)	2-Nitroaniline	
1,2-Dichloropropane	2-Nitrophenol	
1,3-Dichlorobenzene	3,3-Dichlorobenzidine	
1,3-Dichloropropene (cis)	3-Nitroaniline	
1,3-Dichloropropene (trans)	4,6-Dinitro-2-methylphenol	
1,4-Dichlorobenzene	4-Bromophenyl-phenylether	
1,4-Dioxane	4-Chloro-3-methylphenol	
2-Hexanone	4-Chloroaniline	
4-Methyl-2-pentanone	4-Chlorophenyl-phenylether	
Acetone	4-Methylphenol (p-cresol)	
Benzene	4-Nitroaniline	
Bromochloromethane	4-Nitrophenol	
Bromodichloromethane	Acenaphthene	
Bromoform	Acenaphthylene	
Bromomethane	Acetophenone	
Carbon disulfide	Anthracene	
Carbon tetrachloride	Atrazine	
Chlorobenzene	Benzaldehyde	
Chloroethane	Benzo(a)anthracene	
Chloroform	Benzo(a)pyrene	
Chloromethane	Benzo(b)fluoranthene	
Cyclohexane	Benzo(g,h,i)perylene	
Dibromochloromethane	Benzo(k)fluoranthene	
Dichlorodifluoromethane	bis(2-Chloroethoxy)methane	
Ethylbenzene	bis(2-Chloroethyl)ether	
Isopropylbenzene (Cumene)	bis(2-Ethylhexyl)phthalate	
Methyl acetate	Butylbenzylphthalate	
Methyl ethyl ketone (2-Butanone)	Caprolactam	
Methyl tert-butyl ether	Carbazole	
Methylcyclohexane	Chrysene	
Methylene chloride	Dibenz(a,h)anthracene	
Styrene	Dibenzofuran	
Tetrachloroethene	Diethylphthalate	
Toluene	Dimethylphthalate	
Trichloroethene	Di-n-butylphthalate	
Trichlorofluoromethane	Di-n-octylphthalate	
Vinyl chloride	Fluoranthene	
Xylene (total)	Fluorene	
---	Hexachlorobenzene	
---	Hexachlorobutadiene	
---	Hexachlorocyclopentadiene	
---	Hexachloroethane	
---	Indeno(1,2,3-cd)pyrene	
---	Isophorone	
---	Naphthalene	
---	Nitrobenzene	
---	N-Nitroso-di-n-propylamine	
---	N-Nitrosodiphenylamine	
---	Pentachlorophenol	
---	Phenanthrene	
---	Phenol	
---	Pyrene	

Table 3-1
Hydraulic Gradient Calculations
Spic and Span Phase I RI

Location	Monitoring Well ID	Date	Groundwater Elevation (ft amsl)	Screen Setting feet bgs (ft amsl)	Ground Elevation (ft amsl)	Midpoint of Screen Elevation (ft amsl)	Vertical Separation (ft)	February 24, 2011 Gradient (ft)	March 2, 2011 Gradient (ft)
Well Pair DEC-023	DEC-023	02/24/11	4.75	17 - 32	18.16	-6.34	35.46	**0.002**	
		03/02/11	4.85	(1.16 to -13.84)		-6.34	35.46		**0.002**
	DEC-023D	02/24/11	4.69	55 - 65	18.20	-41.80			
		03/02/11	4.79	(-36.8 to -46.8)		-41.80			
Well Pair DEC-024	DEC-024	02/24/11	5.03	17 - 32	20.55	-3.95	23.89	**0.012**	
		03/02/11	4.89	(3.55 to -11.45)		-3.95	23.89		**0.002**
	DEC-024DR	02/24/11	4.74	43 - 53	20.16	-27.84			
		03/02/11	4.84	(-22.84 to -32.84)		-27.84			
Well Pair DEC-035	DEC-035	02/24/11	4.76	15 - 30	17.31	-5.19	37.35	**-0.002**	
		03/02/11	4.85	(2.31 to -12.69)		-5.19	37.35		**-0.002**
	DEC-035D	02/24/11	4.84	55 - 65	17.46	-42.54			
		03/02/11	4.92	(-37.54 to -44.54)		-42.54			
Well Pair DEC-055	DEC-055	02/24/11	4.71	25 - 40	18.83	-13.67	27.50	**0.003**	
		03/02/11	4.77	(-6.17 to -21.17)		-13.67	27.50		**0.003**
	DEC-055D	02/24/11	4.62	55 - 65	18.83	-41.17			
		03/02/11	4.69	(-36.17 to -46.17)		-41.17			
Well Pair DEC-057	DEC-057	02/24/11	4.75	17 - 32	19.78	-4.72	22.54	**0.002**	
		03/02/11	4.84	(2.78 to -12.22)		-4.72	22.54		**0.002**
	DEC-057D	02/24/11	4.70	42 - 52	19.74	-27.26			
		03/02/11	4.80	(-22.26 to -32.26)		-27.26			
Well Pair DEC-058	DEC-058	02/24/11	3.77	15 - 30	18.97	-3.53	37.50	**0.071**	
		03/02/11	3.87	(3.97 to -11.03)		-3.53	37.50		**0.069**
	DEC-058D	02/24/11	1.09	55 - 65	18.97	-41.03			
		03/02/11	1.28	(-36.03 to -46.03)		-41.03			
Well Pair DEC-059	DEC-059	02/24/11	5.10	17 - 32	19.17	-5.33	30.50	**0.030**	
		03/02/11	5.19	(2.17 to -12.83)		-5.33	30.50		**0.027**
	DEC-059D	02/24/11	4.18	50 - 60	19.17	-35.83			
		03/02/11	4.37	(-30.83 to -40.83)		-35.83			
Well Pair DEC-060	DEC-060	02/24/11	3.76	29 - 44	19.57	-16.93	37.50	**0.087**	
		03/02/11	3.86	(-9.43 to -24.43)		-16.93	37.50		**0.084**
	DEC-060D	02/24/11	0.49	69 - 79	19.57	-54.43			
		03/02/11	0.72	(-49.43 to -59.43)		-54.43			

Notes:
ft - feet
amsl - above mean sea level
Positive is DOWNWARD, Negative is UPWARD

February 24, 2011 horizontal gradient from DEC-057 to DEC-060 is -0.02 ft/ft
[3.76' (DEC-060) - 4.75' (DEC-057)]/57' (distance between) = -0.02'

March 2, 2011 horizontal gradient from DEC-057 to DEC-060 is -0.02 ft/ft
[3.86' (DEC-060) - 4.84' (DEC-057)]/57' (distance between) = -0.02'

TABLE 3-2

Summary of Slug Test Results
Phase I Remedial Investigation

Monitoring Well Location ID	Hydraulic Conductivity (cm/sec)	Geologic Unit	Average Hydraulic Conductivity (cm/sec)	
Shallow Overburden			**Shallow Overburden**	
DEC-058S	6.93E-03	sand	sand and clayey silt/sand	8.03E-03
DEC-059S	1.61E-02	clayey silt/sand		
DEC-060S	8.32E-05	sandy silt	sandy silt	3.15E-04
DEC-061S	1.19E-03	sandy silt		
DEC-062S	1.28E-03	clayey silt/sand		
DEC-063S	2.91E-02	clayey silt/sand		
Deep Overburden			**Deep Overburden**	
DEC-025D	3.82E-03	sand	sand/silty sand	1.00E-03
DEC-036D	***5.04E-06***	sandy silt		
DEC-054D	8.00E-04	sand	sandy silt	9.32E-05
DEC-057D	1.20E-03	sand		
DEC-058D	6.93E-04	silty sand		
DEC-059D	1.46E-03	sand		
DEC-060D	1.86E-04	sand		
DEC-061D	9.32E-05	sandy silt		
DEC-062D	2.16E-04	sand		
DEC-063D	6.74E-03	sand		

- Results that are bold (DEC-036D) are considered invalid since the water level was not allowed to fully recover to static level.

TABLE 4-1
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - UNRESTRICTED USE AND PROTECTION OF GROUNDWATER CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				DEC-001	DEC-002	DEC-003	DEC-003	DEC-023
Sample ID				DEC-01-13-14	DEC-02-14-15	DEC-03-03-05	DEC-03-20-21	DEC-23 19-21'
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				13.0-14.0	14.0-15.0	3.0-5.0	20.0-21.0	19.0-21.0
Date Sampled				06/08/07	06/11/07	06/12/07	06/12/07	12/05/07
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	0.68	0.68					
1,1-Dichloroethene	MG/KG	0.33	0.33					
1,2,3-Trichlorobenzene	MG/KG	20 CP-51	-	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	3.4 CP-51					
1,2-Dichlorobenzene	MG/KG	1.1	1.1					
1,2-Dichloroethene (cis)	MG/KG	0.25	0.25					
1,2-Dichloroethene (trans)	MG/KG	0.19	0.19					
Acetone	MG/KG	0.05	0.05	0.031				0.039 J
Benzene	MG/KG	0.06	0.06					
Carbon disulfide	MG/KG	2.7 CP-51	2.7 CP-51					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	1					
Isopropylbenzene (Cumene)	MG/KG	2.3 CP-51	2.3 CP-51					
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12	0.12					
Methyl tert-butyl ether	MG/KG	0.93	0.93					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	0.05	0.0047 J				
Tetrachloroethene	MG/KG	1.3	1.3	0.0017 J				
Toluene	MG/KG	0.7	0.7					
Trichloroethene	MG/KG	0.47	0.47	0.017				
Xylene (total)	MG/KG	0.26	1.6					
Total Volatile Organic Compounds	MG/KG	-	-	0.0544	ND	ND	ND	0.039

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'SO' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" Or LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-1
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - UNRESTRICTED USE AND PROTECTION OF GROUNDWATER CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				DEC-024	DEC-024	DEC-024DR	DEC-025	DEC-025
Sample ID				DEC-24 19-21	DEC-24 23-25	DEC-024DR 45-46	DEC-25 9-10'	DEC-25 14-15'
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				19.0-21.0	23.0-25.0	45.0-46.0	9.0-10.0	14.0-15.0
Date Sampled				12/06/07	12/06/07	06/19/09	12/07/07	12/07/07
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	0.68	0.68					
1,1-Dichloroethene	MG/KG	0.33	0.33					
1,2,3-Trichlorobenzene	MG/KG	20 CP-51	-	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	3.4 CP-51			2.1		
1,2-Dichlorobenzene	MG/KG	1.1	1.1					
1,2-Dichloroethene (cis)	MG/KG	0.25	0.25					
1,2-Dichloroethene (trans)	MG/KG	0.19	0.19					
Acetone	MG/KG	0.05	0.05	0.046 J	0.042 J			0.020 J
Benzene	MG/KG	0.06	0.06					
Carbon disulfide	MG/KG	2.7 CP-51	2.7 CP-51		0.0016 J			
Cyclohexane	MG/KG	-	-		0.097 J			
Ethylbenzene	MG/KG	1	1		0.011 J			
Isopropylbenzene (Cumene)	MG/KG	2.3 CP-51	2.3 CP-51		0.070 J			
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12	0.12					
Methyl tert-butyl ether	MG/KG	0.93	0.93					
Methylcyclohexane	MG/KG	-	-		0.63 JD			
Methylene chloride	MG/KG	0.05	0.05					
Tetrachloroethene	MG/KG	1.3	1.3	0.0015 J		1,000 D	0.0082	0.096
Toluene	MG/KG	0.7	0.7	0.0016				
Trichloroethene	MG/KG	0.47	0.47			0.22		
Xylene (total)	MG/KG	0.26	1.6					
Total Volatile Organic Compounds	MG/KG	-	-	0.0491	0.8516	1,002.32	0.0082	0.116

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-1
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - UNRESTRICTED USE AND PROTECTION OF GROUNDWATER CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				DEC-025	DEC-025D	DEC-025D	DEC-034	DEC-034
Sample ID				DEC-25 28-29	DEC-025D 0-1.5	DEC-025D 1.5-2.5	DEC-034 14-15	DEC-034 18-19
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				28.0-29.0	0.0-1.5	1.5-2.5	14.0-15.0	18.0-19.0
Date Sampled				12/07/07	01/25/11	01/25/11	05/15/08	05/15/08
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	0.68	0.68					
1,1-Dichloroethene	MG/KG	0.33	0.33					
1,2,3-Trichlorobenzene	MG/KG	20 CP-51	-	NA			NA	NA
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	3.4 CP-51					
1,2-Dichlorobenzene	MG/KG	1.1	1.1					
1,2-Dichloroethene (cis)	MG/KG	0.25	0.25					
1,2-Dichloroethene (trans)	MG/KG	0.19	0.19					
Acetone	MG/KG	0.05	0.05					
Benzene	MG/KG	0.06	0.06					
Carbon disulfide	MG/KG	2.7 CP-51	2.7 CP-51					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	1				0.019 J	
Isopropylbenzene (Cumene)	MG/KG	2.3 CP-51	2.3 CP-51				2.4 D	0.012
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12	0.12					
Methyl tert-butyl ether	MG/KG	0.93	0.93					
Methylcyclohexane	MG/KG	-	-				4.8 D	
Methylene chloride	MG/KG	0.05	0.05					
Tetrachloroethene	MG/KG	1.3	1.3		140	1,300 DJ		0.041
Toluene	MG/KG	0.7	0.7					
Trichloroethene	MG/KG	0.47	0.47					
Xylene (total)	MG/KG	0.26	1.6					
Total Volatile Organic Compounds	MG/KG	-	-	ND	140	1,300	7.219	0.053

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-1
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - UNRESTRICTED USE AND PROTECTION OF GROUNDWATER CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				DEC-035	DEC-036	DEC-036D	DEC-037	DEC-038
Sample ID				DEC-035-14-15	DEC-036-25-26	DEC-36D 14-15	DEC-037-14-15	DEC-038-19-20
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				14.0-15.0	25.0-26.0	14.0-15.0	14.0-15.0	19.0-20.0
Date Sampled				05/09/08	05/05/08	01/28/11	05/08/08	05/12/08
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	0.68	0.68					
1,1-Dichloroethene	MG/KG	0.33	0.33					
1,2,3-Trichlorobenzene	MG/KG	20 CP-51	-	NA	NA		NA	NA
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	3.4 CP-51					
1,2-Dichlorobenzene	MG/KG	1.1	1.1					
1,2-Dichloroethene (cis)	MG/KG	0.25	0.25		0.0054 J			
1,2-Dichloroethene (trans)	MG/KG	0.19	0.19					
Acetone	MG/KG	0.05	0.05				0.040	
Benzene	MG/KG	0.06	0.06					
Carbon disulfide	MG/KG	2.7 CP-51	2.7 CP-51					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	1					
Isopropylbenzene (Cumene)	MG/KG	2.3 CP-51	2.3 CP-51					
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12	0.12					
Methyl tert-butyl ether	MG/KG	0.93	0.93					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	0.05					
Tetrachloroethene	MG/KG	1.3	1.3		0.13	0.002 J		
Toluene	MG/KG	0.7	0.7					
Trichloroethene	MG/KG	0.47	0.47		0.0044 J			
Xylene (total)	MG/KG	0.26	1.6	0.0026	0.0028		0.0024	
Total Volatile Organic Compounds	MG/KG	-	-	0.0026	0.1426	0.002	0.0424	ND

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'SO' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" Or LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-1
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - UNRESTRICTED USE AND PROTECTION OF GROUNDWATER CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				DEC-053	DEC-053	DEC-054	DEC-054	DEC-056
Sample ID				DEC-053 8-9	DEC-053 14-15	DEC-054 14-15	DEC-054 18-19	DEC-056 34-35
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				8.0-9.0	14.0-15.0	14.0-15.0	18.0-19.0	34.0-35.0
Date Sampled				06/18/09	06/18/09	06/16/09	06/16/09	06/17/09
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	0.68	0.68					
1,1-Dichloroethene	MG/KG	0.33	0.33					
1,2,3-Trichlorobenzene	MG/KG	20 CP-51	-	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	3.4 CP-51					
1,2-Dichlorobenzene	MG/KG	1.1	1.1					
1,2-Dichloroethene (cis)	MG/KG	0.25	0.25					
1,2-Dichloroethene (trans)	MG/KG	0.19	0.19					
Acetone	MG/KG	0.05	0.05	0.074				
Benzene	MG/KG	0.06	0.06	0.0045	1.3	0.84	0.83	0.0019
Carbon disulfide	MG/KG	2.7 CP-51	2.7 CP-51					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	1					
Isopropylbenzene (Cumene)	MG/KG	2.3 CP-51	2.3 CP-51	0.0077	14	34	35	
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12	0.12					
Methyl tert-butyl ether	MG/KG	0.93	0.93	0.0033				
Methylcyclohexane	MG/KG	-	-	0.072		71	18	
Methylene chloride	MG/KG	0.05	0.05					
Tetrachloroethene	MG/KG	1.3	1.3					
Toluene	MG/KG	0.7	0.7	0.0020				0.0063
Trichloroethene	MG/KG	0.47	0.47					
Xylene (total)	MG/KG	0.26	1.6	0.0013	3.4			
Total Volatile Organic Compounds	MG/KG	-	-	0.1648	18.7	105.84	53.83	0.0082

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

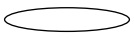
TABLE 4-1
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - UNRESTRICTED USE AND PROTECTION OF GROUNDWATER CRITERIA
SPIC AND SPAN CLEANERS & DYERS

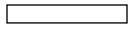
Location ID				DEC-057	DEC-058	DEC-059	DEC-061	DEC-063
Sample ID				DEC-057 19-20	DEC-058S 14-15	DEC-059S 20-22	DEC-061S 33-35	DEC-063S 37-39
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				19.0-20.0	14.0-15.0	20.0-22.0	33.0-35.0	37.0-39.0
Date Sampled				06/16/09	02/02/11	02/02/11	02/01/11	02/02/11
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	0.68	0.68					
1,1-Dichloroethene	MG/KG	0.33	0.33					
1,2,3-Trichlorobenzene	MG/KG	20 CP-51	-	NA				
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	3.4 CP-51					
1,2-Dichlorobenzene	MG/KG	1.1	1.1					
1,2-Dichloroethene (cis)	MG/KG	0.25	0.25				0.003 J	
1,2-Dichloroethene (trans)	MG/KG	0.19	0.19					
Acetone	MG/KG	0.05	0.05	0.034 J				
Benzene	MG/KG	0.06	0.06					
Carbon disulfide	MG/KG	2.7 CP-51	2.7 CP-51					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	1					
Isopropylbenzene (Cumene)	MG/KG	2.3 CP-51	2.3 CP-51		3.5 D			
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12	0.12		0.018 J			
Methyl tert-butyl ether	MG/KG	0.93	0.93					
Methylcyclohexane	MG/KG	-	-		0.27 J			
Methylene chloride	MG/KG	0.05	0.05					
Tetrachloroethene	MG/KG	1.3	1.3	0.020 J	0.026 J	0.005 J	0.011	
Toluene	MG/KG	0.7	0.7					
Trichloroethene	MG/KG	0.47	0.47					
Xylene (total)	MG/KG	0.26	1.6					
Total Volatile Organic Compounds	MG/KG	-	-	0.054	3.814	0.005	0.014	ND

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.


Concentration Exceeds Criteria (1)


Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-1
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - UNRESTRICTED USE AND PROTECTION OF GROUNDWATER CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				DEC-063D	SG-064	SG-065	SG-066	SG-067
Sample ID				DEC-63TC 30-32	20110215-SG064	20110215-SG065	20110215-SG066	20110216-SG067 (2-2.5')
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				30.0-32.0	7.0-7.5	6.5-7.0	6.5-7.0	2.0-2.5
Date Sampled				01/28/11	02/15/11	02/15/11	02/15/11	02/16/11
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	0.68	0.68					
1,1-Dichloroethene	MG/KG	0.33	0.33					
1,2,3-Trichlorobenzene	MG/KG	20 CP-51	-					
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	3.4 CP-51					
1,2-Dichlorobenzene	MG/KG	1.1	1.1					
1,2-Dichloroethene (cis)	MG/KG	0.25	0.25					
1,2-Dichloroethene (trans)	MG/KG	0.19	0.19					
Acetone	MG/KG	0.05	0.05		0.004 J		0.005 J	
Benzene	MG/KG	0.06	0.06					
Carbon disulfide	MG/KG	2.7 CP-51	2.7 CP-51					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	1					
Isopropylbenzene (Cumene)	MG/KG	2.3 CP-51	2.3 CP-51					
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12	0.12					
Methyl tert-butyl ether	MG/KG	0.93	0.93					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	0.05					
Tetrachloroethene	MG/KG	1.3	1.3	0.013				0.019
Toluene	MG/KG	0.7	0.7					
Trichloroethene	MG/KG	0.47	0.47					
Xylene (total)	MG/KG	0.26	1.6					
Total Volatile Organic Compounds	MG/KG	-	-	0.013	0.004	ND	0.005	0.019

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-1
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - UNRESTRICTED USE AND PROTECTION OF GROUNDWATER CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				SG-069	SG-070	SG-071	SG-072	SG-073
Sample ID				20110215-SG069	20110216-SG070 (1.5-2')	20110216-SG071 (0.5-1')	20110215-SG072	20110216-SG073 (21"-27")
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				6.0-6.5	1.5-2.0	0.5-1.0	4.5-5.0	1.8-2.3
Date Sampled				02/15/11	02/16/11	02/16/11	02/15/11	02/16/11
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	0.68	0.68			0.003 J		
1,1-Dichloroethene	MG/KG	0.33	0.33					
1,2,3-Trichlorobenzene	MG/KG	20 CP-51	-					
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	3.4 CP-51					
1,2-Dichlorobenzene	MG/KG	1.1	1.1					
1,2-Dichloroethene (cis)	MG/KG	0.25	0.25			0.004 J		
1,2-Dichloroethene (trans)	MG/KG	0.19	0.19					
Acetone	MG/KG	0.05	0.05	0.008 J			0.005 J	0.008 J
Benzene	MG/KG	0.06	0.06					
Carbon disulfide	MG/KG	2.7 CP-51	2.7 CP-51					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	1					
Isopropylbenzene (Cumene)	MG/KG	2.3 CP-51	2.3 CP-51					
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12	0.12					
Methyl tert-butyl ether	MG/KG	0.93	0.93					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	0.05					
Tetrachloroethene	MG/KG	1.3	1.3		0.019	200 D		
Toluene	MG/KG	0.7	0.7					
Trichloroethene	MG/KG	0.47	0.47			0.013		
Xylene (total)	MG/KG	0.26	1.6					
Total Volatile Organic Compounds	MG/KG	-	-	0.008	0.019	200.02	0.005	0.008

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-1
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - UNRESTRICTED USE AND PROTECTION OF GROUNDWATER CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				SG-074	SG-075	SG-076	SG-077	SSB-01
Sample ID				20110216-SG074 (1.5-2')	20110215-SG075	20110215-SG076	20110215-SG077	SSB-01 (7-7.5')
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				1.5-2.0	6.5-7.0	6.5-7.0	7.5-8.0	7.0-7.5
Date Sampled				02/16/11	02/15/11	02/15/11	02/15/11	02/17/11
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	0.68	0.68					
1,1-Dichloroethene	MG/KG	0.33	0.33					
1,2,3-Trichlorobenzene	MG/KG	20 CP-51	-					
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	3.4 CP-51					
1,2-Dichlorobenzene	MG/KG	1.1	1.1					
1,2-Dichloroethene (cis)	MG/KG	0.25	0.25					
1,2-Dichloroethene (trans)	MG/KG	0.19	0.19					
Acetone	MG/KG	0.05	0.05	0.003 J	0.011 J			
Benzene	MG/KG	0.06	0.06					
Carbon disulfide	MG/KG	2.7 CP-51	2.7 CP-51					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	1					
Isopropylbenzene (Cumene)	MG/KG	2.3 CP-51	2.3 CP-51					
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12	0.12					
Methyl tert-butyl ether	MG/KG	0.93	0.93					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	0.05					
Tetrachloroethene	MG/KG	1.3	1.3			0.025	0.019	
Toluene	MG/KG	0.7	0.7					
Trichloroethene	MG/KG	0.47	0.47					
Xylene (total)	MG/KG	0.26	1.6					
Total Volatile Organic Compounds	MG/KG	-	-	0.003	0.011	0.025	0.019	ND

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-1
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - UNRESTRICTED USE AND PROTECTION OF GROUNDWATER CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				SSB-01	SSB-02	SSB-02	SSB-03	SSB-03
Sample ID				SSB-01 (14.5-15')	SSB-02 (4.5-5')	SSB-02 (5.5-6')	20110214-SSB03	SSB-03 (5.5-6')
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				14.5-15.0	4.5-5.0	5.5-6.0	1.0-1.5	5.5-6.0
Date Sampled				02/17/11	02/17/11	02/17/11	02/14/11	02/17/11
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	0.68	0.68				0.008	
1,1-Dichloroethene	MG/KG	0.33	0.33					
1,2,3-Trichlorobenzene	MG/KG	20 CP-51	-				0.002 J	
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	3.4 CP-51				0.011 J	
1,2-Dichlorobenzene	MG/KG	1.1	1.1					
1,2-Dichloroethene (cis)	MG/KG	0.25	0.25				0.003 J	
1,2-Dichloroethene (trans)	MG/KG	0.19	0.19					
Acetone	MG/KG	0.05	0.05	0.008 J				
Benzene	MG/KG	0.06	0.06					
Carbon disulfide	MG/KG	2.7 CP-51	2.7 CP-51					
Cyclohexane	MG/KG	-	-				0.013	
Ethylbenzene	MG/KG	1	1					
Isopropylbenzene (Cumene)	MG/KG	2.3 CP-51	2.3 CP-51					
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12	0.12					
Methyl tert-butyl ether	MG/KG	0.93	0.93					
Methylcyclohexane	MG/KG	-	-				0.002 J	
Methylene chloride	MG/KG	0.05	0.05					
Tetrachloroethene	MG/KG	1.3	1.3		0.084	0.15	2,000 DJ	110 D
Toluene	MG/KG	0.7	0.7					
Trichloroethene	MG/KG	0.47	0.47				0.098	0.004 J
Xylene (total)	MG/KG	0.26	1.6				0.006 J	
Total Volatile Organic Compounds	MG/KG	-	-	0.008	0.084	0.15	2,000.143	110.004

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-1
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - UNRESTRICTED USE AND PROTECTION OF GROUNDWATER CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				SSB-04	SSB-04	SSB-05	SSB-06	SSB-06
Sample ID				SSB-04 (12.5-13')	SSB-04 (22-22.5')	SSB-05 (8.5-9')	SSB-06 (13-13.5')	SSB-06 (16-16.5')
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				12.5-13.0	22.0-22.5	8.5-9.0	13.0-13.5	16.0-16.5
Date Sampled				02/17/11	02/17/11	02/17/11	02/17/11	02/17/11
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	0.68	0.68				0.002 J	
1,1-Dichloroethene	MG/KG	0.33	0.33					
1,2,3-Trichlorobenzene	MG/KG	20 CP-51	-				0.023 J	
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	3.4 CP-51				0.24 J	0.011 J
1,2-Dichlorobenzene	MG/KG	1.1	1.1				0.009	
1,2-Dichloroethene (cis)	MG/KG	0.25	0.25		0.018	0.004 J		
1,2-Dichloroethene (trans)	MG/KG	0.19	0.19					
Acetone	MG/KG	0.05	0.05	0.005 J	0.012 J	0.014 J	0.008 J	0.007 J
Benzene	MG/KG	0.06	0.06					
Carbon disulfide	MG/KG	2.7 CP-51	2.7 CP-51			0.002 J		
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	1	1					
Isopropylbenzene (Cumene)	MG/KG	2.3 CP-51	2.3 CP-51					
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12	0.12					
Methyl tert-butyl ether	MG/KG	0.93	0.93					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	0.05					
Tetrachloroethene	MG/KG	1.3	1.3	0.023	1.8 D	34 D	1,200 D	1.0 D
Toluene	MG/KG	0.7	0.7					
Trichloroethene	MG/KG	0.47	0.47		0.011	0.031	0.49 J	
Xylene (total)	MG/KG	0.26	1.6				0.006	
Total Volatile Organic Compounds	MG/KG	-	-	0.028	1.841	34.051	1,200.778	1.018

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-1
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - UNRESTRICTED USE AND PROTECTION OF GROUNDWATER CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				SSB-07	SSB-07	SSB-08	SSB-08	SSB-10
Sample ID				SSB-07 (13-13.5')	SSB-07 (16.5-17')	20110214-SSB08	SSB-08 (9-9.5')	SSB-10 (5-5.5')
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				13.0-13.5	16.5-17.0	0.5-1.0	9.0-9.5	5.0-5.5
Date Sampled				02/17/11	02/17/11	02/14/11	02/17/11	02/17/11
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	0.68	0.68					
1,1-Dichloroethene	MG/KG	0.33	0.33			0.003 J		
1,2,3-Trichlorobenzene	MG/KG	20 CP-51	-			0.007 J		
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	3.4 CP-51			0.13		
1,2-Dichlorobenzene	MG/KG	1.1	1.1			0.008		
1,2-Dichloroethene (cis)	MG/KG	0.25	0.25			0.35 J		
1,2-Dichloroethene (trans)	MG/KG	0.19	0.19			0.012		
Acetone	MG/KG	0.05	0.05	0.004 J	0.005 J		0.003 J	
Benzene	MG/KG	0.06	0.06					
Carbon disulfide	MG/KG	2.7 CP-51	2.7 CP-51					
Cyclohexane	MG/KG	-	-			0.007		
Ethylbenzene	MG/KG	1	1					
Isopropylbenzene (Cumene)	MG/KG	2.3 CP-51	2.3 CP-51					
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12	0.12					
Methyl tert-butyl ether	MG/KG	0.93	0.93					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	0.05	0.05					
Tetrachloroethene	MG/KG	1.3	1.3			1,300 D	0.048	0.037 J
Toluene	MG/KG	0.7	0.7					
Trichloroethene	MG/KG	0.47	0.47			21 DJ		
Xylene (total)	MG/KG	0.26	1.6			0.005 J		
Total Volatile Organic Compounds	MG/KG	-	-	0.004	0.005	1,321.522	0.051	0.037

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-1
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - UNRESTRICTED USE AND PROTECTION OF GROUNDWATER CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				SSB-10
Sample ID				SSB-10 (6.5-7')
Matrix				Soil
Depth Interval (ft)				6.5-7.0
Date Sampled				02/17/11
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	
Volatile Organic Compounds				
1,1,1-Trichloroethane	MG/KG	0.68	0.68	
1,1-Dichloroethene	MG/KG	0.33	0.33	
1,2,3-Trichlorobenzene	MG/KG	20 CP-51	-	
1,2,4-Trichlorobenzene	MG/KG	3.4 CP-51	3.4 CP-51	
1,2-Dichlorobenzene	MG/KG	1.1	1.1	
1,2-Dichloroethene (cis)	MG/KG	0.25	0.25	0.004 J
1,2-Dichloroethene (trans)	MG/KG	0.19	0.19	
Acetone	MG/KG	0.05	0.05	
Benzene	MG/KG	0.06	0.06	
Carbon disulfide	MG/KG	2.7 CP-51	2.7 CP-51	
Cyclohexane	MG/KG	-	-	
Ethylbenzene	MG/KG	1	1	
Isopropylbenzene (Cumene)	MG/KG	2.3 CP-51	2.3 CP-51	
Methyl ethyl ketone (2-Butanone)	MG/KG	0.12	0.12	
Methyl tert-butyl ether	MG/KG	0.93	0.93	
Methylcyclohexane	MG/KG	-	-	
Methylene chloride	MG/KG	0.05	0.05	
Tetrachloroethene	MG/KG	1.3	1.3	0.11 J
Toluene	MG/KG	0.7	0.7	
Trichloroethene	MG/KG	0.47	0.47	0.006
Xylene (total)	MG/KG	0.26	1.6	
Total Volatile Organic Compounds	MG/KG	-	-	0.12

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Unrestricted Use, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Restricted Use. Protection of Groundwater, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-2
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - RESIDENTIAL AND RESTRICTED RESIDENTIAL USE CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				DEC-001	DEC-002	DEC-003	DEC-003	DEC-023
Sample ID				DEC-01-13-14	DEC-02-14-15	DEC-03-03-05	DEC-03-20-21	DEC-23 19-21'
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				13.0-14.0	14.0-15.0	3.0-5.0	20.0-21.0	19.0-21.0
Date Sampled				06/08/07	06/11/07	06/12/07	06/12/07	12/05/07
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	100	100					
1,1-Dichloroethene	MG/KG	100	100					
1,2,3-Trichlorobenzene	MG/KG	-	-	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	MG/KG	-	-					
1,2-Dichlorobenzene	MG/KG	100	100					
1,2-Dichloroethene (cis)	MG/KG	59	100					
1,2-Dichloroethene (trans)	MG/KG	100	100					
Acetone	MG/KG	100	100	0.031				0.039 J
Benzene	MG/KG	2.9	4.8					
Carbon disulfide	MG/KG	100 CP-51	-					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	30	41					
Isopropylbenzene (Cumene)	MG/KG	100 CP-51	-					
Methyl ethyl ketone (2-Butanone)	MG/KG	100	100					
Methyl tert-butyl ether	MG/KG	62	100					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	51	100	0.0047 J				
Tetrachloroethene	MG/KG	5.5	19	0.0017 J				
Toluene	MG/KG	100	100					
Trichloroethene	MG/KG	10	21	0.017				
Xylene (total)	MG/KG	100	100					
Total Volatile Organic Compounds	MG/KG	-	-	0.0544	ND	ND	ND	0.039

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Residential, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Restricted Residential, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'SO' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" Or LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-2
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - RESIDENTIAL AND RESTRICTED RESIDENTIAL USE CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				DEC-024	DEC-024	DEC-024DR	DEC-025	DEC-025
Sample ID				DEC-24 19-21	DEC-24 23-25	DEC-024DR 45-46	DEC-25 9-10'	DEC-25 14-15'
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				19.0-21.0	23.0-25.0	45.0-46.0	9.0-10.0	14.0-15.0
Date Sampled				12/06/07	12/06/07	06/19/09	12/07/07	12/07/07
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	100	100					
1,1-Dichloroethene	MG/KG	100	100					
1,2,3-Trichlorobenzene	MG/KG	-	-	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	MG/KG	-	-			2.1		
1,2-Dichlorobenzene	MG/KG	100	100					
1,2-Dichloroethene (cis)	MG/KG	59	100					
1,2-Dichloroethene (trans)	MG/KG	100	100					
Acetone	MG/KG	100	100	0.046 J	0.042 J			0.020 J
Benzene	MG/KG	2.9	4.8					
Carbon disulfide	MG/KG	100 CP-51	-		0.0016 J			
Cyclohexane	MG/KG	-	-		0.097 J			
Ethylbenzene	MG/KG	30	41		0.011 J			
Isopropylbenzene (Cumene)	MG/KG	100 CP-51	-		0.070 J			
Methyl ethyl ketone (2-Butanone)	MG/KG	100	100					
Methyl tert-butyl ether	MG/KG	62	100					
Methylcyclohexane	MG/KG	-	-		0.63 JD			
Methylene chloride	MG/KG	51	100					
Tetrachloroethene	MG/KG	5.5	19	0.0015 J		1,000 D	0.0082	0.096
Toluene	MG/KG	100	100	0.0016				
Trichloroethene	MG/KG	10	21			0.22		
Xylene (total)	MG/KG	100	100					
Total Volatile Organic Compounds	MG/KG	-	-	0.0491	0.8516	1,002.32	0.0082	0.116

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Residential, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Restricted Residential, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'SO' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-2
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - RESIDENTIAL AND RESTRICTED RESIDENTIAL USE CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				DEC-025	DEC-025D	DEC-025D	DEC-034	DEC-034
Sample ID				DEC-25 28-29	DEC-025D 0-1.5	DEC-025D 1.5-2.5	DEC-034 14-15	DEC-034 18-19
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				28.0-29.0	0.0-1.5	1.5-2.5	14.0-15.0	18.0-19.0
Date Sampled				12/07/07	01/25/11	01/25/11	05/15/08	05/15/08
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	100	100					
1,1-Dichloroethene	MG/KG	100	100					
1,2,3-Trichlorobenzene	MG/KG	-	-	NA			NA	NA
1,2,4-Trichlorobenzene	MG/KG	-	-					
1,2-Dichlorobenzene	MG/KG	100	100					
1,2-Dichloroethene (cis)	MG/KG	59	100					
1,2-Dichloroethene (trans)	MG/KG	100	100					
Acetone	MG/KG	100	100					
Benzene	MG/KG	2.9	4.8					
Carbon disulfide	MG/KG	100 CP-51	-					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	30	41				0.019 J	
Isopropylbenzene (Cumene)	MG/KG	100 CP-51	-				2.4 D	0.012
Methyl ethyl ketone (2-Butanone)	MG/KG	100	100					
Methyl tert-butyl ether	MG/KG	62	100					
Methylcyclohexane	MG/KG	-	-				4.8 D	
Methylene chloride	MG/KG	51	100					
Tetrachloroethene	MG/KG	5.5	19		140	1,300 DJ		0.041
Toluene	MG/KG	100	100					
Trichloroethene	MG/KG	10	21					
Xylene (total)	MG/KG	100	100					
Total Volatile Organic Compounds	MG/KG	-	-	ND	140	1,300	7.219	0.053

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Residential, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Restricted Residential, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-2
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - RESIDENTIAL AND RESTRICTED RESIDENTIAL USE CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				DEC-035	DEC-036	DEC-036D	DEC-037	DEC-038
Sample ID				DEC-035-14-15	DEC-036-25-26	DEC-36D 14-15	DEC-037-14-15	DEC-038-19-20
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				14.0-15.0	25.0-26.0	14.0-15.0	14.0-15.0	19.0-20.0
Date Sampled				05/09/08	05/05/08	01/28/11	05/08/08	05/12/08
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	100	100					
1,1-Dichloroethene	MG/KG	100	100					
1,2,3-Trichlorobenzene	MG/KG	-	-	NA	NA		NA	NA
1,2,4-Trichlorobenzene	MG/KG	-	-					
1,2-Dichlorobenzene	MG/KG	100	100					
1,2-Dichloroethene (cis)	MG/KG	59	100		0.0054 J			
1,2-Dichloroethene (trans)	MG/KG	100	100					
Acetone	MG/KG	100	100				0.040	
Benzene	MG/KG	2.9	4.8					
Carbon disulfide	MG/KG	100 CP-51	-					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	30	41					
Isopropylbenzene (Cumene)	MG/KG	100 CP-51	-					
Methyl ethyl ketone (2-Butanone)	MG/KG	100	100					
Methyl tert-butyl ether	MG/KG	62	100					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	51	100					
Tetrachloroethene	MG/KG	5.5	19		0.13	0.002 J		
Toluene	MG/KG	100	100					
Trichloroethene	MG/KG	10	21		0.0044 J			
Xylene (total)	MG/KG	100	100	0.0026	0.0028		0.0024	
Total Volatile Organic Compounds	MG/KG	-	-	0.0026	0.1426	0.002	0.0424	ND

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Residential, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Restricted Residential, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'SO' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-2
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - RESIDENTIAL AND RESTRICTED RESIDENTIAL USE CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				DEC-053	DEC-053	DEC-054	DEC-054	DEC-056
Sample ID				DEC-053 8-9	DEC-053 14-15	DEC-054 14-15	DEC-054 18-19	DEC-056 34-35
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				8.0-9.0	14.0-15.0	14.0-15.0	18.0-19.0	34.0-35.0
Date Sampled				06/18/09	06/18/09	06/16/09	06/16/09	06/17/09
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	100	100					
1,1-Dichloroethene	MG/KG	100	100					
1,2,3-Trichlorobenzene	MG/KG	-	-	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	MG/KG	-	-					
1,2-Dichlorobenzene	MG/KG	100	100					
1,2-Dichloroethene (cis)	MG/KG	59	100					
1,2-Dichloroethene (trans)	MG/KG	100	100					
Acetone	MG/KG	100	100	0.074				
Benzene	MG/KG	2.9	4.8	0.0045	1.3	0.84	0.83	0.0019
Carbon disulfide	MG/KG	100 CP-51	-					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	30	41					
Isopropylbenzene (Cumene)	MG/KG	100 CP-51	-	0.0077	14	34	35	
Methyl ethyl ketone (2-Butanone)	MG/KG	100	100					
Methyl tert-butyl ether	MG/KG	62	100	0.0033				
Methylcyclohexane	MG/KG	-	-	0.072		71	18	
Methylene chloride	MG/KG	51	100					
Tetrachloroethene	MG/KG	5.5	19					
Toluene	MG/KG	100	100	0.0020				0.0063
Trichloroethene	MG/KG	10	21					
Xylene (total)	MG/KG	100	100	0.0013	3.4			
Total Volatile Organic Compounds	MG/KG	-	-	0.1648	18.7	105.84	53.83	0.0082

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Residential, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Restricted Residential, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'SO' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" Or LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-2
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - RESIDENTIAL AND RESTRICTED RESIDENTIAL USE CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				DEC-057	DEC-058	DEC-059	DEC-061	DEC-063
Sample ID				DEC-057 19-20	DEC-058S 14-15	DEC-059S 20-22	DEC-061S 33-35	DEC-063S 37-39
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				19.0-20.0	14.0-15.0	20.0-22.0	33.0-35.0	37.0-39.0
Date Sampled				06/16/09	02/02/11	02/02/11	02/01/11	02/02/11
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	100	100					
1,1-Dichloroethene	MG/KG	100	100					
1,2,3-Trichlorobenzene	MG/KG	-	-	NA				
1,2,4-Trichlorobenzene	MG/KG	-	-					
1,2-Dichlorobenzene	MG/KG	100	100					
1,2-Dichloroethene (cis)	MG/KG	59	100				0.003 J	
1,2-Dichloroethene (trans)	MG/KG	100	100					
Acetone	MG/KG	100	100	0.034 J				
Benzene	MG/KG	2.9	4.8					
Carbon disulfide	MG/KG	100 CP-51	-					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	30	41					
Isopropylbenzene (Cumene)	MG/KG	100 CP-51	-		3.5 D			
Methyl ethyl ketone (2-Butanone)	MG/KG	100	100		0.018 J			
Methyl tert-butyl ether	MG/KG	62	100					
Methylcyclohexane	MG/KG	-	-		0.27 J			
Methylene chloride	MG/KG	51	100					
Tetrachloroethene	MG/KG	5.5	19	0.020 J	0.026 J	0.005 J	0.011	
Toluene	MG/KG	100	100					
Trichloroethene	MG/KG	10	21					
Xylene (total)	MG/KG	100	100					
Total Volatile Organic Compounds	MG/KG	-	-	0.054	3.814	0.005	0.014	ND

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Residential, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Restricted Residential, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-2
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - RESIDENTIAL AND RESTRICTED RESIDENTIAL USE CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				DEC-063D	SG-064	SG-065	SG-066	SG-067
Sample ID				DEC-63TC 30-32	20110215-SG064	20110215-SG065	20110215-SG066	20110216-SG067 (2-2.5')
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				30.0-32.0	7.0-7.5	6.5-7.0	6.5-7.0	2.0-2.5
Date Sampled				01/28/11	02/15/11	02/15/11	02/15/11	02/16/11
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	100	100					
1,1-Dichloroethene	MG/KG	100	100					
1,2,3-Trichlorobenzene	MG/KG	-	-					
1,2,4-Trichlorobenzene	MG/KG	-	-					
1,2-Dichlorobenzene	MG/KG	100	100					
1,2-Dichloroethene (cis)	MG/KG	59	100					
1,2-Dichloroethene (trans)	MG/KG	100	100					
Acetone	MG/KG	100	100		0.004 J		0.005 J	
Benzene	MG/KG	2.9	4.8					
Carbon disulfide	MG/KG	100 CP-51	-					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	30	41					
Isopropylbenzene (Cumene)	MG/KG	100 CP-51	-					
Methyl ethyl ketone (2-Butanone)	MG/KG	100	100					
Methyl tert-butyl ether	MG/KG	62	100					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	51	100					
Tetrachloroethene	MG/KG	5.5	19	0.013				0.019
Toluene	MG/KG	100	100					
Trichloroethene	MG/KG	10	21					
Xylene (total)	MG/KG	100	100					
Total Volatile Organic Compounds	MG/KG	-	-	0.013	0.004	ND	0.005	0.019

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Residential, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Restricted Residential, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'SO' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" Or LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-2
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - RESIDENTIAL AND RESTRICTED RESIDENTIAL USE CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				SG-069	SG-070	SG-071	SG-072	SG-073
Sample ID				20110215-SG069	20110216-SG070 (1.5-2')	20110216-SG071 (0.5-1')	20110215-SG072	20110216-SG073 (21"-27")
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				6.0-6.5	1.5-2.0	0.5-1.0	4.5-5.0	1.8-2.3
Date Sampled				02/15/11	02/16/11	02/16/11	02/15/11	02/16/11
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	100	100			0.003 J		
1,1-Dichloroethene	MG/KG	100	100					
1,2,3-Trichlorobenzene	MG/KG	-	-					
1,2,4-Trichlorobenzene	MG/KG	-	-					
1,2-Dichlorobenzene	MG/KG	100	100					
1,2-Dichloroethene (cis)	MG/KG	59	100			0.004 J		
1,2-Dichloroethene (trans)	MG/KG	100	100					
Acetone	MG/KG	100	100	0.008 J			0.005 J	0.008 J
Benzene	MG/KG	2.9	4.8					
Carbon disulfide	MG/KG	100 CP-51	-					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	30	41					
Isopropylbenzene (Cumene)	MG/KG	100 CP-51	-					
Methyl ethyl ketone (2-Butanone)	MG/KG	100	100					
Methyl tert-butyl ether	MG/KG	62	100					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	51	100					
Tetrachloroethene	MG/KG	5.5	19		0.019	200 D		
Toluene	MG/KG	100	100					
Trichloroethene	MG/KG	10	21			0.013		
Xylene (total)	MG/KG	100	100					
Total Volatile Organic Compounds	MG/KG	-	-	0.008	0.019	200.02	0.005	0.008

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Residential, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Restricted Residential, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-2
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - RESIDENTIAL AND RESTRICTED RESIDENTIAL USE CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				SG-074	SG-075	SG-076	SG-077	SSB-01
Sample ID				20110216-SG074 (1.5-2')	20110215-SG075	20110215-SG076	20110215-SG077	SSB-01 (7-7.5')
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				1.5-2.0	6.5-7.0	6.5-7.0	7.5-8.0	7.0-7.5
Date Sampled				02/16/11	02/15/11	02/15/11	02/15/11	02/17/11
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	100	100					
1,1-Dichloroethene	MG/KG	100	100					
1,2,3-Trichlorobenzene	MG/KG	-	-					
1,2,4-Trichlorobenzene	MG/KG	-	-					
1,2-Dichlorobenzene	MG/KG	100	100					
1,2-Dichloroethene (cis)	MG/KG	59	100					
1,2-Dichloroethene (trans)	MG/KG	100	100					
Acetone	MG/KG	100	100	0.003 J	0.011 J			
Benzene	MG/KG	2.9	4.8					
Carbon disulfide	MG/KG	100 CP-51	-					
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	30	41					
Isopropylbenzene (Cumene)	MG/KG	100 CP-51	-					
Methyl ethyl ketone (2-Butanone)	MG/KG	100	100					
Methyl tert-butyl ether	MG/KG	62	100					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	51	100					
Tetrachloroethene	MG/KG	5.5	19			0.025	0.019	
Toluene	MG/KG	100	100					
Trichloroethene	MG/KG	10	21					
Xylene (total)	MG/KG	100	100					
Total Volatile Organic Compounds	MG/KG	-	-	0.003	0.011	0.025	0.019	ND

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Residential, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Restricted Residential, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-2
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - RESIDENTIAL AND RESTRICTED RESIDENTIAL USE CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				SSB-01	SSB-02	SSB-02	SSB-03	SSB-03
Sample ID				SSB-01 (14.5-15')	SSB-02 (4.5-5')	SSB-02 (5.5-6')	20110214-SSB03	SSB-03 (5.5-6')
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				14.5-15.0	4.5-5.0	5.5-6.0	1.0-1.5	5.5-6.0
Date Sampled				02/17/11	02/17/11	02/17/11	02/14/11	02/17/11
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	100	100				0.008	
1,1-Dichloroethene	MG/KG	100	100					
1,2,3-Trichlorobenzene	MG/KG	-	-				0.002 J	
1,2,4-Trichlorobenzene	MG/KG	-	-				0.011 J	
1,2-Dichlorobenzene	MG/KG	100	100					
1,2-Dichloroethene (cis)	MG/KG	59	100				0.003 J	
1,2-Dichloroethene (trans)	MG/KG	100	100					
Acetone	MG/KG	100	100	0.008 J				
Benzene	MG/KG	2.9	4.8					
Carbon disulfide	MG/KG	100 CP-51	-					
Cyclohexane	MG/KG	-	-				0.013	
Ethylbenzene	MG/KG	30	41					
Isopropylbenzene (Cumene)	MG/KG	100 CP-51	-					
Methyl ethyl ketone (2-Butanone)	MG/KG	100	100					
Methyl tert-butyl ether	MG/KG	62	100					
Methylcyclohexane	MG/KG	-	-				0.002 J	
Methylene chloride	MG/KG	51	100					
Tetrachloroethene	MG/KG	5.5	19		0.084	0.15	2,000 DJ	110 D
Toluene	MG/KG	100	100					
Trichloroethene	MG/KG	10	21				0.098	0.004 J
Xylene (total)	MG/KG	100	100				0.006 J	
Total Volatile Organic Compounds	MG/KG	-	-	0.008	0.084	0.15	2,000.143	110.004

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Residential, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Restricted Residential, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-2
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - RESIDENTIAL AND RESTRICTED RESIDENTIAL USE CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				SSB-04	SSB-04	SSB-05	SSB-06	SSB-06
Sample ID				SSB-04 (12.5-13')	SSB-04 (22-22.5')	SSB-05 (8.5-9')	SSB-06 (13-13.5')	SSB-06 (16-16.5')
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				12.5-13.0	22.0-22.5	8.5-9.0	13.0-13.5	16.0-16.5
Date Sampled				02/17/11	02/17/11	02/17/11	02/17/11	02/17/11
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	100	100				0.002 J	
1,1-Dichloroethene	MG/KG	100	100					
1,2,3-Trichlorobenzene	MG/KG	-	-				0.023 J	
1,2,4-Trichlorobenzene	MG/KG	-	-				0.24 J	0.011 J
1,2-Dichlorobenzene	MG/KG	100	100				0.009	
1,2-Dichloroethene (cis)	MG/KG	59	100		0.018	0.004 J		
1,2-Dichloroethene (trans)	MG/KG	100	100					
Acetone	MG/KG	100	100	0.005 J	0.012 J	0.014 J	0.008 J	0.007 J
Benzene	MG/KG	2.9	4.8					
Carbon disulfide	MG/KG	100 CP-51	-			0.002 J		
Cyclohexane	MG/KG	-	-					
Ethylbenzene	MG/KG	30	41					
Isopropylbenzene (Cumene)	MG/KG	100 CP-51	-					
Methyl ethyl ketone (2-Butanone)	MG/KG	100	100					
Methyl tert-butyl ether	MG/KG	62	100					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	51	100					
Tetrachloroethene	MG/KG	5.5	19	0.023	1.8 D	34 D	1,200 D	1.0 D
Toluene	MG/KG	100	100					
Trichloroethene	MG/KG	10	21		0.011	0.031	0.49 J	
Xylene (total)	MG/KG	100	100				0.006	
Total Volatile Organic Compounds	MG/KG	-	-	0.028	1.841	34.051	1,200.778	1.018

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Residential, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Restricted Residential, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-2
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - RESIDENTIAL AND RESTRICTED RESIDENTIAL USE CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				SSB-07	SSB-07	SSB-08	SSB-08	SSB-10
Sample ID				SSB-07 (13-13.5')	SSB-07 (16.5-17')	20110214-SSB08	SSB-08 (9-9.5')	SSB-10 (5-5.5')
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				13.0-13.5	16.5-17.0	0.5-1.0	9.0-9.5	5.0-5.5
Date Sampled				02/17/11	02/17/11	02/14/11	02/17/11	02/17/11
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**					
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	100	100					
1,1-Dichloroethene	MG/KG	100	100			0.003 J		
1,2,3-Trichlorobenzene	MG/KG	-	-			0.007 J		
1,2,4-Trichlorobenzene	MG/KG	-	-			0.13		
1,2-Dichlorobenzene	MG/KG	100	100			0.008		
1,2-Dichloroethene (cis)	MG/KG	59	100			0.35 J		
1,2-Dichloroethene (trans)	MG/KG	100	100			0.012		
Acetone	MG/KG	100	100	0.004 J	0.005 J		0.003 J	
Benzene	MG/KG	2.9	4.8					
Carbon disulfide	MG/KG	100 CP-51	-					
Cyclohexane	MG/KG	-	-			0.007		
Ethylbenzene	MG/KG	30	41					
Isopropylbenzene (Cumene)	MG/KG	100 CP-51	-					
Methyl ethyl ketone (2-Butanone)	MG/KG	100	100					
Methyl tert-butyl ether	MG/KG	62	100					
Methylcyclohexane	MG/KG	-	-					
Methylene chloride	MG/KG	51	100					
Tetrachloroethene	MG/KG	5.5	19			1,300 D	0.048	0.037 J
Toluene	MG/KG	100	100					
Trichloroethene	MG/KG	10	21			21 DJ		
Xylene (total)	MG/KG	100	100			0.005 J		
Total Volatile Organic Compounds	MG/KG	-	-	0.004	0.005	1,321.522	0.051	0.037

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Residential, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Restricted Residential, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-2
SUMMARY OF DETECTED COMPOUNDS IN ALL SOIL SAMPLES - RESIDENTIAL AND RESTRICTED RESIDENTIAL USE CRITERIA
SPIC AND SPAN CLEANERS & DYERS

Location ID				SSB-10
Sample ID				SSB-10 (6.5-7')
Matrix				Soil
Depth Interval (ft)				6.5-7.0
Date Sampled				02/17/11
Parameter	**Units**	**Criteria (1)**	**Criteria (2)**	
Volatile Organic Compounds				
1,1,1-Trichloroethane	MG/KG	100	100	
1,1-Dichloroethene	MG/KG	100	100	
1,2,3-Trichlorobenzene	MG/KG	-	-	
1,2,4-Trichlorobenzene	MG/KG	-	-	
1,2-Dichlorobenzene	MG/KG	100	100	
1,2-Dichloroethene (cis)	MG/KG	59	100	0.004 J
1,2-Dichloroethene (trans)	MG/KG	100	100	
Acetone	MG/KG	100	100	
Benzene	MG/KG	2.9	4.8	
Carbon disulfide	MG/KG	100 CP-51	-	
Cyclohexane	MG/KG	-	-	
Ethylbenzene	MG/KG	30	41	
Isopropylbenzene (Cumene)	MG/KG	100 CP-51	-	
Methyl ethyl ketone (2-Butanone)	MG/KG	100	100	
Methyl tert-butyl ether	MG/KG	62	100	
Methylcyclohexane	MG/KG	-	-	
Methylene chloride	MG/KG	51	100	
Tetrachloroethene	MG/KG	5.5	19	0.11 J
Toluene	MG/KG	100	100	
Trichloroethene	MG/KG	10	21	0.006
Xylene (total)	MG/KG	100	100	
Total Volatile Organic Compounds	MG/KG	-	-	0.12

Criteria (1)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Residential, plus CP-51 Table 1 10/21/10.

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Restricted Residential, plus CP-51 Table 1 10/21/10.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria (1)

Concentration Exceeds Criteria (2)

- = No standard or guidance value.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-3
STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN ALL SOIL SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Parameter	Units	No. of Samples	No. of Detections	Range of Detections			Location of Max Value	Depth Of Max
				Min	Max	Avg		
Volatile Organic Compounds								
1,1,1-Trichloroethane	MG/KG	61	3	0.002	0.008	0.004	SSB-03	1-1.5
1,1-Dichloroethene	MG/KG	61	1	0.003	0.003	0.003	SSB-08	0.5-1
1,2,3-Trichlorobenzene	MG/KG	61	3	0.002	0.023	0.011	SSB-06	13-13.5
1,2,4-Trichlorobenzene	MG/KG	61	5	0.011	2.10	0.498	DEC-024DR	45-46
1,2-Dichlorobenzene	MG/KG	61	2	0.008	0.009	0.009	SSB-06	13-13.5
1,2-Dichloroethene (cis)	MG/KG	61	8	0.003	0.350	0.049	SSB-08	0.5-1
1,2-Dichloroethene (trans)	MG/KG	61	1	0.012	0.012	0.012	SSB-08	0.5-1
Acetone	MG/KG	61	24	0.003	0.074	0.018	DEC-053	8-9
Benzene	MG/KG	61	5	0.002	1.30	0.595	DEC-053	14-15
Carbon disulfide	MG/KG	61	2	0.002	0.002	0.002	SSB-05	8.5-9
Cyclohexane	MG/KG	61	3	0.007	0.097	0.039	DEC-024	23-25
Ethylbenzene	MG/KG	61	2	0.011	0.019	0.015	DEC-034	14-15
Isopropylbenzene (Cumene)	MG/KG	61	8	0.008	35.00	11.12	DEC-054	18-19
Methyl ethyl ketone (2-Butanone)	MG/KG	61	1	0.018	0.018	0.018	DEC-058	14-15
Methyl tert-butyl ether	MG/KG	61	1	0.003	0.003	0.003	DEC-053	8-9
Methylcyclohexane	MG/KG	61	7	0.002	71.00	13.54	DEC-054	14-15
Methylene chloride	MG/KG	61	1	0.005	0.005	0.005	DEC-001	13-14
Tetrachloroethene	MG/KG	61	33	0.002	2,000	220.8	SSB-03	1-1.5
Toluene	MG/KG	61	3	0.002	0.006	0.003	DEC-056	34-35
Trichloroethene	MG/KG	61	11	0.004	21.00	1.99	SSB-08	0.5-1
Xylene (total)	MG/KG	61	8	0.001	3.40	0.428	DEC-053	14-15

Number of detections may be greater than the number of samples because field duplicates are not counted in the number of samples.

Only Detected Results Reported.

TABLE 4-4
SUMMARY OF DETECTED COMPOUNDS IN ALL NAPL SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		DEC-024D	DEC-024D	DEC-034	DEC-053	DEC-054
Sample ID		DEC-024D-PROD	DEC-024D DNAPL	DEC-034	DEC-53	DEC-054
Matrix		DNAPL	DNAPL	LNAPL	LNAPL	LNAPL
Depth Interval (ft)		-	-	-	-	-
Date Sampled		05/29/08	06/22/09	07/09/09	03/09/11	07/09/09
Parameter	**Units**					
Volatile Organic Compounds						
1,2,4-Trichlorobenzene	MG/KG		170			
1,4-Dichlorobenzene	MG/KG				18 J	
Benzene	MG/KG			28 J		110 J
Chlorobenzene	MG/KG				25 J	
Cyclohexane	MG/KG			1,200 D	7,600 D	970 D
Ethylbenzene	MG/KG			180 J	56 J	130 J
Isopropylbenzene (Cumene)	MG/KG			440 J	500 J	1,900 D
Methylcyclohexane	MG/KG			3,300 D	18,000 D	2,400 D
Tetrachloroethene	MG/KG	700,000	730,000 D	1.1 J		
Toluene	MG/KG			6.0 J	70 J	1.9 J
Trichloroethene	MG/KG		720			
Xylene (total)	MG/KG			51 J	170 J	11 J
Semivolatile Organic Compounds						
1,1-Biphenyl	MG/KG	84	110			
1,2,4-Trichlorobenzene	MG/KG	250	NA	NA	NA	NA
2-Methylnaphthalene	MG/KG			1,400	1,000 J	
bis(2-Ethylhexyl)phthalate	MG/KG	41	36			510
Fluorene	MG/KG			140		
Naphthalene	MG/KG			700	600 J	
Phenanthrene	MG/KG			140	130 J	
Miscellaneous Parameters						
Total Petroleum Hydrocarbons	%	NA	NA	NA	100 DJ	NA
Specific Gravity	G/ML	NA	NA	NA	0.7852	NA

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-5
SUMMARY OF DETECTED COMPOUNDS IN RI GROUNDWATER SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-001	DEC-002	DEC-003D	DEC-023	DEC-023D
Sample ID			DEC-001	DEC-002	DEC-003D	DEC-23	DEC-23D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/03/11	03/03/11	03/07/11	03/04/11	03/04/11
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5	1 J				
1,1-Dichloroethane	UG/L	5					
1,1-Dichloroethene	UG/L	5					
1,2,3-Trichlorobenzene	UG/L	-					
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6					
1,2-Dichloroethene (cis)	UG/L	5	5		32		
1,2-Dichloroethene (trans)	UG/L	5					
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50			2 J		
Benzene	UG/L	1					
Chlorobenzene	UG/L	5					
Chloroform	UG/L	7			2 J		
Cyclohexane	UG/L	-				1,100 D	
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5				41 J	
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methyl tert-butyl ether	UG/L	10					
Methylcyclohexane	UG/L	-				1,600 D	
Methylene chloride	UG/L	5					

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-5
SUMMARY OF DETECTED COMPOUNDS IN RI GROUNDWATER SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-001	DEC-002	DEC-003D	DEC-023	DEC-023D
Sample ID			DEC-001	DEC-002	DEC-003D	DEC-23	DEC-23D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/03/11	03/03/11	03/07/11	03/04/11	03/04/11
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Tetrachloroethene	UG/L	5	29	1	280 D	15 J	3
Toluene	UG/L	5					
Trichloroethene	UG/L	5	82	2	39		
Vinyl chloride	UG/L	2					
Xylene (total)	UG/L	5					

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-5
SUMMARY OF DETECTED COMPOUNDS IN RI GROUNDWATER SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-024	DEC-024	DEC-025	DEC-025D	DEC-034
Sample ID			DEC-24	DUP-030711	DEC-25	DEC-25D	DEC-34
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/07/11	03/07/11	03/03/11	03/03/11	03/09/11
Parameter	**Units**	**Criteria***		Field Duplicate (1-1)			
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5					
1,1-Dichloroethene	UG/L	5	5 J	5 J			
1,2,3-Trichlorobenzene	UG/L	-					
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6					
1,2-Dichloroethene (cis)	UG/L	5	190 D	230 D	30		30
1,2-Dichloroethene (trans)	UG/L	5	4 J	5 J			1 J
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50					
Benzene	UG/L	1					430 D
Chlorobenzene	UG/L	5					2 J
Chloroform	UG/L	7					
Cyclohexane	UG/L	-	100 J	110 J			28
Ethylbenzene	UG/L	5					1 J
Isopropylbenzene (Cumene)	UG/L	5	34 J	35 J			15
Methyl ethyl ketone (2-Butanone)	UG/L	50					6
Methyl tert-butyl ether	UG/L	10					9
Methylcyclohexane	UG/L	-	100 J	100 J			28
Methylene chloride	UG/L	5					

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-5
SUMMARY OF DETECTED COMPOUNDS IN RI GROUNDWATER SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-024	DEC-024	DEC-025	DEC-025D	DEC-034
Sample ID			DEC-24	DUP-030711	DEC-25	DEC-25D	DEC-34
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/07/11	03/07/11	03/03/11	03/03/11	03/09/11
Parameter	**Units**	**Criteria***		Field Duplicate (1-1)			
Volatile Organic Compounds							
Tetrachloroethene	UG/L	5	98 J	110 J	1,400 D	11	3 J
Toluene	UG/L	5					3 J
Trichloroethene	UG/L	5	90 J	100 J	120		8
Vinyl chloride	UG/L	2	190 J	220 D			13
Xylene (total)	UG/L	5					

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-5
SUMMARY OF DETECTED COMPOUNDS IN RI GROUNDWATER SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-035	DEC-035	DEC-035D	DEC-036	DEC-036D
Sample ID			DEC-35	DUP-030411	DEC-35D	DEC-36	DEC-36D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/04/11	03/04/11	03/04/11	03/02/11	03/02/11
Parameter	Units	Criteria*		Field Duplicate (1-1)			
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5				4 J	
1,1-Dichloroethane	UG/L	5				5	1 J
1,1-Dichloroethene	UG/L	5				6	3
1,2,3-Trichlorobenzene	UG/L	-					
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6					4
1,2-Dichloroethene (cis)	UG/L	5				3,200 D	780 D
1,2-Dichloroethene (trans)	UG/L	5				8	4 J
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50					
Benzene	UG/L	1					
Chlorobenzene	UG/L	5					
Chloroform	UG/L	7				1 J	
Cyclohexane	UG/L	-				2 J	
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5				2 J	
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methyl tert-butyl ether	UG/L	10				1 J	4 J
Methylcyclohexane	UG/L	-				6	
Methylene chloride	UG/L	5					

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-5
SUMMARY OF DETECTED COMPOUNDS IN RI GROUNDWATER SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-035	DEC-035	DEC-035D	DEC-036	DEC-036D
Sample ID			DEC-35	DUP-030411	DEC-35D	DEC-36	DEC-36D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/04/11	03/04/11	03/04/11	03/02/11	03/02/11
Parameter	**Units**	**Criteria***		Field Duplicate (1-1)			
Volatile Organic Compounds							
Tetrachloroethene	UG/L	5	6	4	2	7,400 D	6,100 D
Toluene	UG/L	5					
Trichloroethene	UG/L	5				1,500 D	530 D
Vinyl chloride	UG/L	2				140	5
Xylene (total)	UG/L	5					

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-5
SUMMARY OF DETECTED COMPOUNDS IN RI GROUNDWATER SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-037	DEC-038	DEC-053	DEC-053D	DEC-054
Sample ID			DEC-37	DEC-38	DEC-53 GW	DEC-53D	DEC-54
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/03/11	03/08/11	03/09/11	03/07/11	03/09/11
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5	1 J		6 J		
1,1-Dichloroethene	UG/L	5					
1,2,3-Trichlorobenzene	UG/L	-					
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6					
1,2-Dichloroethene (cis)	UG/L	5	5				2 J
1,2-Dichloroethene (trans)	UG/L	5					
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50			33 J		
Benzene	UG/L	1			33		5
Chlorobenzene	UG/L	5			2 J		
Chloroform	UG/L	7					
Cyclohexane	UG/L	-			32		2 J
Ethylbenzene	UG/L	5			2 J		
Isopropylbenzene (Cumene)	UG/L	5			27		6
Methyl ethyl ketone (2-Butanone)	UG/L	50			33		2 J
Methyl tert-butyl ether	UG/L	10	3 J			1 J	
Methylcyclohexane	UG/L	-			22		3 J
Methylene chloride	UG/L	5					

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-5
SUMMARY OF DETECTED COMPOUNDS IN RI GROUNDWATER SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-037	DEC-038	DEC-053	DEC-053D	DEC-054
Sample ID			DEC-37	DEC-38	DEC-53 GW	DEC-53D	DEC-54
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/03/11	03/08/11	03/09/11	03/07/11	03/09/11
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Tetrachloroethene	UG/L	5	1			12	18 J
Toluene	UG/L	5			4 J		
Trichloroethene	UG/L	5	2				2
Vinyl chloride	UG/L	2					
Xylene (total)	UG/L	5			4 J		

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-5
SUMMARY OF DETECTED COMPOUNDS IN RI GROUNDWATER SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-054D	DEC-054D	DEC-055	DEC-055D	DEC-056
Sample ID			DEC-54D	DUP-030811	DEC-55	DEC-55D	DEC-56
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/08/11	03/08/11	03/07/11	03/07/11	03/08/11
Parameter	Units	Criteria*		Field Duplicate (1-1)			
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5					
1,1-Dichloroethene	UG/L	5					
1,2,3-Trichlorobenzene	UG/L	-					
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6					
1,2-Dichloroethene (cis)	UG/L	5	42	44			
1,2-Dichloroethene (trans)	UG/L	5	1 J	2 J			
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50					
Benzene	UG/L	1					
Chlorobenzene	UG/L	5					
Chloroform	UG/L	7					
Cyclohexane	UG/L	-					
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5		1 J			
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methyl tert-butyl ether	UG/L	10				1 J	
Methylcyclohexane	UG/L	-		1 J			
Methylene chloride	UG/L	5					

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-5
SUMMARY OF DETECTED COMPOUNDS IN RI GROUNDWATER SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-054D	DEC-054D	DEC-055	DEC-055D	DEC-056
Sample ID			DEC-54D	DUP-030811	DEC-55	DEC-55D	DEC-56
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/08/11	03/08/11	03/07/11	03/07/11	03/08/11
Parameter	Units	Criteria*		Field Duplicate (1-1)			
Volatile Organic Compounds							
Tetrachloroethene	UG/L	5	800 D	730 DJ	4	6	5
Toluene	UG/L	5					
Trichloroethene	UG/L	5	18	18			
Vinyl chloride	UG/L	2	13	14			
Xylene (total)	UG/L	5					

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-5
SUMMARY OF DETECTED COMPOUNDS IN RI GROUNDWATER SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-057	DEC-057D	DEC-058	DEC-058D	DEC-059
Sample ID			DEC-57	DEC-57D	DEC-58	DEC-58D	DEC-59
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/07/11	03/07/11	03/04/11	03/04/11	03/08/11
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5		1 J	1 J	1 J	
1,1-Dichloroethene	UG/L	5			53	4	
1,2,3-Trichlorobenzene	UG/L	-			1 J		
1,2,4-Trichlorobenzene	UG/L	5		7	3 J		
1,2-Dichlorobenzene	UG/L	3			3 J		
1,2-Dichloroethane	UG/L	0.6					
1,2-Dichloroethene (cis)	UG/L	5	72	5	14,000 D	860 DJ	2 J
1,2-Dichloroethene (trans)	UG/L	5	4 J		28	3 J	
1,4-Dichlorobenzene	UG/L	3			8		
Acetone	UG/L	50					
Benzene	UG/L	1				1	
Chlorobenzene	UG/L	5			2 J		
Chloroform	UG/L	7					
Cyclohexane	UG/L	-	39 J	1 J	16	1 J	
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5	8		27		
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methyl tert-butyl ether	UG/L	10		13			
Methylcyclohexane	UG/L	-	68		15		
Methylene chloride	UG/L	5			1 J		

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-5
SUMMARY OF DETECTED COMPOUNDS IN RI GROUNDWATER SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-057	DEC-057D	DEC-058	DEC-058D	DEC-059
Sample ID			DEC-57	DEC-57D	DEC-58	DEC-58D	DEC-59
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/07/11	03/07/11	03/04/11	03/04/11	03/08/11
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Tetrachloroethene	UG/L	5	19	76,000 D	18,000 D	14,000 D	5
Toluene	UG/L	5			1 J	2 J	
Trichloroethene	UG/L	5	3	59	3,700 D	870 D	
Vinyl chloride	UG/L	2	610 D		3,200 D	82	
Xylene (total)	UG/L	5			2 J		

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-5
SUMMARY OF DETECTED COMPOUNDS IN RI GROUNDWATER SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-059D	DEC-060	DEC-060D	DEC-061	DEC-061
Sample ID			DEC-59D	DEC-60	DEC-60D	DEC-61	DUP-030311
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/08/11	03/03/11	03/03/11	03/03/11	03/03/11
Parameter	Units	Criteria*					Field Duplicate (1-1)
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5		2 J			
1,1-Dichloroethane	UG/L	5		5	4 J		
1,1-Dichloroethene	UG/L	5		16	12		
1,2,3-Trichlorobenzene	UG/L	-					
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6			4		
1,2-Dichloroethene (cis)	UG/L	5		6,900 D	3,800 D	270 D	320 D
1,2-Dichloroethene (trans)	UG/L	5		45	20		
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50			1 J		
Benzene	UG/L	1					
Chlorobenzene	UG/L	5					
Chloroform	UG/L	7		6	2 J		
Cyclohexane	UG/L	-					
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5					
Methyl ethyl ketone (2-Butanone)	UG/L	50	1 J				
Methyl tert-butyl ether	UG/L	10	2 J	4 J	1 J		
Methylcyclohexane	UG/L	-			14		
Methylene chloride	UG/L	5		2	2		

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-5
SUMMARY OF DETECTED COMPOUNDS IN RI GROUNDWATER SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-059D	DEC-060	DEC-060D	DEC-061	DEC-061
Sample ID			DEC-59D	DEC-60	DEC-60D	DEC-61	DUP-030311
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/08/11	03/03/11	03/03/11	03/03/11	03/03/11
Parameter	**Units**	**Criteria***					Field Duplicate (1-1)
Volatile Organic Compounds							
Tetrachloroethene	UG/L	5	38	20,000 D	19,000 D	730 D	900 D
Toluene	UG/L	5		1 J	2 J		
Trichloroethene	UG/L	5		3,300 D	1,600 D	260 D	320 D
Vinyl chloride	UG/L	2		160	240 J	2	2
Xylene (total)	UG/L	5					

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-5
SUMMARY OF DETECTED COMPOUNDS IN RI GROUNDWATER SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-061D	DEC-062	DEC-062D	DEC-063	DEC-063D
Sample ID			DEC-61D	DEC-062	DEC-62D	DEC-63	DEC-63D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/03/11	03/04/11	03/04/11	03/07/11	03/03/11
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5		2 J			1 J
1,1-Dichloroethene	UG/L	5					
1,2,3-Trichlorobenzene	UG/L	-					
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6					
1,2-Dichloroethene (cis)	UG/L	5	7	4 J			
1,2-Dichloroethene (trans)	UG/L	5					
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50					
Benzene	UG/L	1					
Chlorobenzene	UG/L	5					
Chloroform	UG/L	7				4 J	
Cyclohexane	UG/L	-					
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5					
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methyl tert-butyl ether	UG/L	10					3 J
Methylcyclohexane	UG/L	-					
Methylene chloride	UG/L	5					

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-5
SUMMARY OF DETECTED COMPOUNDS IN RI GROUNDWATER SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-061D	DEC-062	DEC-062D	DEC-063	DEC-063D
Sample ID			DEC-61D	DEC-062	DEC-62D	DEC-63	DEC-63D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/03/11	03/04/11	03/04/11	03/07/11	03/03/11
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Tetrachloroethene	UG/L	5	4,500 D	31	3	3	
Toluene	UG/L	5					
Trichloroethene	UG/L	5	12	13			
Vinyl chloride	UG/L	2					
Xylene (total)	UG/L	5					

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-6
STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI GROUNDWATER SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Parameter	Units	No. of Samples	No. of Detections	Range of Detections			Location of Max Value
				Min	Max	Avg	
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	36	3	1.00	4.00	2.33	DEC-036
1,1-Dichloroethane	UG/L	36	11	1.00	6.00	2.55	DEC-053
1,1-Dichloroethene	UG/L	36	7	3.00	53.00	14.14	DEC-058
1,2,3-Trichlorobenzene	UG/L	36	1	1.00	1.00	1.00	DEC-058
1,2,4-Trichlorobenzene	UG/L	36	2	3.00	7.00	5.00	DEC-057D
1,2-Dichlorobenzene	UG/L	36	1	3.00	3.00	3.00	DEC-058
1,2-Dichloroethane	UG/L	36	2	4.00	4.00	4.00	DEC-060D
1,2-Dichloroethene (cis)	UG/L	36	20	2.00	1.40E+04	1,512	DEC-058
1,2-Dichloroethene (trans)	UG/L	36	10	1.00	45.00	11.80	DEC-060
1,4-Dichlorobenzene	UG/L	36	1	8.00	8.00	8.00	DEC-058
Acetone	UG/L	36	3	1.00	33.00	12.00	DEC-053
Benzene	UG/L	36	4	1.00	430.0	117.3	DEC-034
Chlorobenzene	UG/L	36	3	2.00	2.00	2.00	DEC-058
Chloroform	UG/L	36	5	1.00	6.00	3.00	DEC-060
Cyclohexane	UG/L	36	10	1.00	1,100	132.1	DEC-023
Ethylbenzene	UG/L	36	2	1.00	2.00	1.50	DEC-053
Isopropylbenzene (Cumene)	UG/L	36	8	2.00	41.00	20.00	DEC-023
Methyl ethyl ketone (2-Butanone)	UG/L	36	4	1.00	33.00	10.50	DEC-053

Number of detections may be greater than the number of samples because field duplicates are not counted in the number of samples.

Only Detected Results Reported.

TABLE 4-6
STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI GROUNDWATER SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Parameter	Units	No. of Samples	No. of Detections	Range of Detections			Location of Max Value
				Min	Max	Avg	
Volatile Organic Compounds							
Methyl tert-butyl ether	UG/L	36	11	1.00	13.00	3.82	DEC-057D
Methylcyclohexane	UG/L	36	9	3.00	1,600	206.2	DEC-023
Methylene chloride	UG/L	36	3	1.00	2.00	1.67	DEC-060D
Tetrachloroethene	UG/L	36	33	1.00	7.60E+04	5,107	DEC-057D
Toluene	UG/L	36	6	1.00	4.00	2.17	DEC-053
Trichloroethene	UG/L	36	20	2.00	3,700	610.5	DEC-058
Vinyl chloride	UG/L	36	11	2.00	3,200	423.2	DEC-058
Xylene (total)	UG/L	36	2	2.00	4.00	3.00	DEC-053

Number of detections may be greater than the number of samples because field duplicates are not counted in the number of samples.

Only Detected Results Reported.

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-001	DEC-001	DEC-001	DEC-001	DEC-002
Sample ID			DEC-01	DEC-001	DEC-001	DEC-001	DEC-02
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/29/07	12/10/07	07/16/08	03/03/11	06/29/07
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5			1.0	1 J	
1,1-Dichloroethane	UG/L	5					
1,1-Dichloroethene	UG/L	5					
1,2,3-Trichlorobenzene	UG/L	-	NA	NA	NA		NA
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6					
1,2-Dichloroethene (cis)	UG/L	5	1.3 J	1.1 J	1.1	5	
1,2-Dichloroethene (trans)	UG/L	5					
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50					
Benzene	UG/L	1					
Chlorobenzene	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7					
Cyclohexane	UG/L	-					
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5					
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methyl tert-butyl ether	UG/L	10	3.0	3.0			
Methylcyclohexane	UG/L	-					

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057* LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-001	DEC-001	DEC-001	DEC-001	DEC-002
Sample ID			DEC-01	DEC-001	DEC-001	DEC-001	DEC-02
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/29/07	12/10/07	07/16/08	03/03/11	06/29/07
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5	10	3.1 J	3.3	29	1.2 J
Toluene	UG/L	5					
Trichloroethene	UG/L	5	110 J	56	52	82	2.9 J
Vinyl chloride	UG/L	2					
Xylene (total)	UG/L	5					
Total Volatile Organic Compounds	UG/L	-	124.3	63.2	57.4	117	4.1

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-002	DEC-002	DEC-003	DEC-003	DEC-003
Sample ID			DEC-002	DEC-002	2007-06-29-DUP-02	DEC-03	DEC-003
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/10/07	03/03/11	06/29/07	06/29/07	12/10/07
Parameter	**Units**	**Criteria***			Field Duplicate (1-1)		
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5			1.2 J	1.1 J	
1,1-Dichloroethene	UG/L	5					
1,2,3-Trichlorobenzene	UG/L	-	NA		NA	NA	NA
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6					
1,2-Dichloroethene (cis)	UG/L	5			5.0 J	5.3	7.5
1,2-Dichloroethene (trans)	UG/L	5					
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50					
Benzene	UG/L	1					
Chlorobenzene	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7					
Cyclohexane	UG/L	-					
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5					
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methyl tert-butyl ether	UG/L	10			10	11	12
Methylcyclohexane	UG/L	-					

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

(oval) Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057* LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-002	DEC-002	DEC-003	DEC-003	DEC-003
Sample ID			DEC-002	DEC-002	2007-06-29-DUP-02	DEC-03	DEC-003
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/10/07	03/03/11	06/29/07	06/29/07	12/10/07
Parameter	**Units**	**Criteria***			Field Duplicate (1-1)		
Volatile Organic Compounds							
Methylene chloride	UG/L	5	2.5 J				3.2 J
Tetrachloroethene	UG/L	5		1	6.8	6.1	6.8
Toluene	UG/L	5					
Trichloroethene	UG/L	5	3.2 J	2	11 J	10 J	17
Vinyl chloride	UG/L	2					
Xylene (total)	UG/L	5					
Total Volatile Organic Compounds	UG/L	-	5.7	3	34	33.5	46.5

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" Or LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-003	DEC-003	DEC-003D	DEC-003D	DEC-023
Sample ID			071608-FD1	DEC-003	DEC-03D	DEC-003D	DEC-023
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/16/08	07/16/08	07/16/08	03/07/11	12/13/07
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)				
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5		1.1	1.7		
1,1-Dichloroethene	UG/L	5					
1,2,3-Trichlorobenzene	UG/L	-	NA	NA	NA		NA
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6					
1,2-Dichloroethene (cis)	UG/L	5	3.5	3.7	14	32	
1,2-Dichloroethene (trans)	UG/L	5					
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50				2 J	
Benzene	UG/L	1					24
Chlorobenzene	UG/L	5					
Chloroethane	UG/L	5					2.0 J
Chloroform	UG/L	7			17	2 J	
Cyclohexane	UG/L	-					960 JD
Ethylbenzene	UG/L	5					11
Isopropylbenzene (Cumene)	UG/L	5					95
Methyl ethyl ketone (2-Butanone)	UG/L	50			2.2		
Methyl tert-butyl ether	UG/L	10	12	10			
Methylcyclohexane	UG/L	-					1,200 JD

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-003	DEC-003	DEC-003D	DEC-003D	DEC-023
Sample ID			071608-FD1	DEC-003	DEC-03D	DEC-003D	DEC-023
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/16/08	07/16/08	07/16/08	03/07/11	12/13/07
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)				
Volatile Organic Compounds							
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5	6.4	6.0	420 D	280 D	
Toluene	UG/L	5					
Trichloroethene	UG/L	5	12	12	39	39	
Vinyl chloride	UG/L	2					
Xylene (total)	UG/L	5					1.3 J
Total Volatile Organic Compounds	UG/L	-	33.9	32.8	493.9	355	2,293.3

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-023	DEC-023	DEC-023	DEC-023D	DEC-023D
Sample ID			DEC-023	DEC-023	DEC-23	DEC-023D	DUP-071009
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/15/08	07/10/09	03/04/11	07/10/09	07/10/09
Parameter	Units	Criteria*					Field Duplicate (1-1)
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5					
1,1-Dichloroethene	UG/L	5					
1,2,3-Trichlorobenzene	UG/L	-	NA	NA		NA	NA
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6					
1,2-Dichloroethene (cis)	UG/L	5					
1,2-Dichloroethene (trans)	UG/L	5					
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50					
Benzene	UG/L	1		2.6			
Chlorobenzene	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7				3.0	3.1
Cyclohexane	UG/L	-	1,000	400	1,100 D		
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5	110	78	41 J		
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methyl tert-butyl ether	UG/L	10				0.56	0.67
Methylcyclohexane	UG/L	-	1,800	480	1,600 D		

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057* LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-023	DEC-023	DEC-023	DEC-023D	DEC-023D
Sample ID			DEC-023	DEC-023	DEC-23	DEC-023D	DUP-071009
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/15/08	07/10/09	03/04/11	07/10/09	07/10/09
Parameter	**Units**	**Criteria***					Field Duplicate (1-1)
Volatile Organic Compounds							
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5			15 J	1.1 J	1.4 J
Toluene	UG/L	5					
Trichloroethene	UG/L	5					
Vinyl chloride	UG/L	2					
Xylene (total)	UG/L	5					
Total Volatile Organic Compounds	UG/L	-	2,910	960.6	2,756	4.66	5.17

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-023D	DEC-024	DEC-024	DEC-024	DEC-024
Sample ID			DEC-23D	DEC-024	DEC-024	DEC-024	DEC-24
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/04/11	12/13/07	07/24/08	07/09/09	03/07/11
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5		4.0 J			
1,1-Dichloroethene	UG/L	5		7.1			5 J
1,2,3-Trichlorobenzene	UG/L	-		NA	NA	NA	
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6					
1,2-Dichloroethene (cis)	UG/L	5		120	1,400	80	190 D
1,2-Dichloroethene (trans)	UG/L	5		6.0		2.6	4 J
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50					
Benzene	UG/L	1					
Chlorobenzene	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7		3.2 J			
Cyclohexane	UG/L	-		89 J	170	90	100 J
Ethylbenzene	UG/L	5		15			
Isopropylbenzene (Cumene)	UG/L	5		71	120	63	34 J
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methyl tert-butyl ether	UG/L	10				0.84	
Methylcyclohexane	UG/L	-		190 J	240	75	100 J

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-023D	DEC-024	DEC-024	DEC-024	DEC-024
Sample ID			DEC-23D	DEC-024	DEC-024	DEC-024	DEC-24
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/04/11	12/13/07	07/24/08	07/09/09	03/07/11
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5	3	39,000 D	130	100 J	98 J
Toluene	UG/L	5					
Trichloroethene	UG/L	5		500	170	63	90 J
Vinyl chloride	UG/L	2		40	11	18	190 J
Xylene (total)	UG/L	5		30 J			
Total Volatile Organic Compounds	UG/L	-	3	40,075.3	2,241	492.44	811

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057* LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-024	DEC-025	DEC-025	DEC-025	DEC-025
Sample ID			DUP-030711	121307-FD-02	DEC-025	DEC-025	DEC-025
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/07/11	12/13/07	12/13/07	07/17/08	07/08/09
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)	Field Duplicate (1-1)			
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5					
1,1-Dichloroethene	UG/L	5	5 J				
1,2,3-Trichlorobenzene	UG/L	-		NA	NA	NA	NA
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6					
1,2-Dichloroethene (cis)	UG/L	5	230 D			12	11
1,2-Dichloroethene (trans)	UG/L	5	5 J				
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50					
Benzene	UG/L	1					
Chlorobenzene	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7					
Cyclohexane	UG/L	-	110 J				
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5	35 J				
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methyl tert-butyl ether	UG/L	10			1.1		1.1
Methylcyclohexane	UG/L	-	100 J				

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-024	DEC-025	DEC-025	DEC-025	DEC-025
Sample ID			DUP-030711	121307-FD-02	DEC-025	DEC-025	DEC-025
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/07/11	12/13/07	12/13/07	07/17/08	07/08/09
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)	Field Duplicate (1-1)			
Volatile Organic Compounds							
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5	110 J	67	58	8.3	18
Toluene	UG/L	5					
Trichloroethene	UG/L	5	100 J				4.7 J
Vinyl chloride	UG/L	2	220 D				
Xylene (total)	UG/L	5					
Total Volatile Organic Compounds	UG/L	-	915	67	59.1	20.3	34.8

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-025	DEC-025D	DEC-034	DEC-034	DEC-035
Sample ID			DEC-25	DEC-25D	DEC-034	DEC-34	DEC-035
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/03/11	03/03/11	07/17/08	03/09/11	07/17/08
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5					
1,1-Dichloroethene	UG/L	5					
1,2,3-Trichlorobenzene	UG/L	-			NA		NA
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6					
1,2-Dichloroethene (cis)	UG/L	5	30		23	30	
1,2-Dichloroethene (trans)	UG/L	5				1 J	
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50					
Benzene	UG/L	1			2.1	430 D	
Chlorobenzene	UG/L	5				2 J	
Chloroethane	UG/L	5					
Chloroform	UG/L	7					
Cyclohexane	UG/L	-			5.5	28	
Ethylbenzene	UG/L	5				1 J	
Isopropylbenzene (Cumene)	UG/L	5			4.0	15	
Methyl ethyl ketone (2-Butanone)	UG/L	50				6	
Methyl tert-butyl ether	UG/L	10				9	
Methylcyclohexane	UG/L	-			8.1	28	

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

(oval) Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-025	DEC-025D	DEC-034	DEC-034	DEC-035
Sample ID			DEC-25	DEC-25D	DEC-034	DEC-34	DEC-035
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/03/11	03/03/11	07/17/08	03/09/11	07/17/08
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5	1,400 D	11	35	3 J	
Toluene	UG/L	5				3 J	
Trichloroethene	UG/L	5	120		8.5	8	
Vinyl chloride	UG/L	2				13	
Xylene (total)	UG/L	5					
Total Volatile Organic Compounds	UG/L	-	1,550	11	86.2	577	ND

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-035	DEC-035	DEC-035	DEC-035D	DEC-035D
Sample ID			DEC-035	DEC-35	DUP-030411	DEC-035D	DEC-35D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/13/09	03/04/11	03/04/11	07/09/09	03/04/11
Parameter	**Units**	**Criteria***			Field Duplicate (1-1)		
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5					
1,1-Dichloroethene	UG/L	5					
1,2,3-Trichlorobenzene	UG/L	-	NA			NA	
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6					
1,2-Dichloroethene (cis)	UG/L	5					
1,2-Dichloroethene (trans)	UG/L	5					
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50					
Benzene	UG/L	1					
Chlorobenzene	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7				9.0	
Cyclohexane	UG/L	-					
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5					
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methyl tert-butyl ether	UG/L	10					
Methylcyclohexane	UG/L	-					

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

(oval) Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-035	DEC-035	DEC-035	DEC-035D	DEC-035D
Sample ID			DEC-035	DEC-35	DUP-030411	DEC-035D	DEC-35D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/13/09	03/04/11	03/04/11	07/09/09	03/04/11
Parameter	**Units**	**Criteria***			Field Duplicate (1-1)		
Volatile Organic Compounds							
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5		6	4		2
Toluene	UG/L	5					
Trichloroethene	UG/L	5					
Vinyl chloride	UG/L	2					
Xylene (total)	UG/L	5					
Total Volatile Organic Compounds	UG/L	-	ND	6	4	9	2

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-036	DEC-036	DEC-036	DEC-036D	DEC-037
Sample ID			DEC-036	DEC-036	DEC-36	DEC-36D	DEC-037
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/18/08	07/08/09	03/02/11	03/02/11	07/17/08
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5			4 J		
1,1-Dichloroethane	UG/L	5			5	1 J	
1,1-Dichloroethene	UG/L	5			6	3	
1,2,3-Trichlorobenzene	UG/L	-	NA	NA			NA
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6				4	
1,2-Dichloroethene (cis)	UG/L	5	3,800	3,800	3,200 D	780 D	1.8
1,2-Dichloroethene (trans)	UG/L	5			8	4 J	
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50					
Benzene	UG/L	1					
Chlorobenzene	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7			1 J		
Cyclohexane	UG/L	-			2 J		
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5			2 J		
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methyl tert-butyl ether	UG/L	10			1 J	4 J	1.4
Methylcyclohexane	UG/L	-			6		

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-036	DEC-036	DEC-036	DEC-036D	DEC-037
Sample ID			DEC-036	DEC-036	DEC-36	DEC-36D	DEC-037
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/18/08	07/08/09	03/02/11	03/02/11	07/17/08
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5	5,900	8,200	7,400 D	6,100 D	
Toluene	UG/L	5					
Trichloroethene	UG/L	5	2,400	2,500 J	1,500 D	530 D	
Vinyl chloride	UG/L	2	140		140	5	
Xylene (total)	UG/L	5					
Total Volatile Organic Compounds	UG/L	-	12,240	14,500	12,275	7,431	3.2

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

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Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-037	DEC-038	DEC-038	DEC-038	DEC-053
Sample ID			DEC-37	071808-FD-1	DEC-038	DEC-38	DEC-053
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/03/11	07/18/08	07/18/08	03/08/11	07/10/09
Parameter	**Units**	**Criteria***		Field Duplicate (1-1)			
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5	1 J				
1,1-Dichloroethene	UG/L	5					
1,2,3-Trichlorobenzene	UG/L	-		NA	NA		NA
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6					
1,2-Dichloroethene (cis)	UG/L	5	5				
1,2-Dichloroethene (trans)	UG/L	5					
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50					40
Benzene	UG/L	1					180
Chlorobenzene	UG/L	5					13
Chloroethane	UG/L	5					
Chloroform	UG/L	7					
Cyclohexane	UG/L	-					75
Ethylbenzene	UG/L	5					8.0
Isopropylbenzene (Cumene)	UG/L	5					39
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methyl tert-butyl ether	UG/L	10	3 J				
Methylcyclohexane	UG/L	-					48

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-037	DEC-038	DEC-038	DEC-038	DEC-053
Sample ID			DEC-37	071808-FD-1	DEC-038	DEC-38	DEC-053
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/03/11	07/18/08	07/18/08	03/08/11	07/10/09
Parameter	**Units**	**Criteria***		Field Duplicate (1-1)			
Volatile Organic Compounds							
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5	1				
Toluene	UG/L	5					22
Trichloroethene	UG/L	5	2				
Vinyl chloride	UG/L	2					
Xylene (total)	UG/L	5					39.5
Total Volatile Organic Compounds	UG/L	-	12	ND	ND	ND	464.5

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

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Concentration Exceeds Criteria

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Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-053	DEC-053D	DEC-053D	DEC-054	DEC-054D
Sample ID			DEC-53 GW	DEC-053D	DEC-53D	DEC-54	DEC-54D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/09/11	07/10/09	03/07/11	03/09/11	03/08/11
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5	6 J				
1,1-Dichloroethene	UG/L	5					
1,2,3-Trichlorobenzene	UG/L	-		NA			
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6					
1,2-Dichloroethene (cis)	UG/L	5				2 J	42
1,2-Dichloroethene (trans)	UG/L	5					1 J
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50	33 J				
Benzene	UG/L	1	33	1.1		5	
Chlorobenzene	UG/L	5	2 J				
Chloroethane	UG/L	5					
Chloroform	UG/L	7		3.2			
Cyclohexane	UG/L	-	32			2 J	
Ethylbenzene	UG/L	5	2 J				
Isopropylbenzene (Cumene)	UG/L	5	27			6	
Methyl ethyl ketone (2-Butanone)	UG/L	50	33			2 J	
Methyl tert-butyl ether	UG/L	10		3.4	1 J		
Methylcyclohexane	UG/L	-	22	2.0		3 J	

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-053	DEC-053D	DEC-053D	DEC-054	DEC-054D
Sample ID			DEC-53 GW	DEC-053D	DEC-53D	DEC-54	DEC-54D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/09/11	07/10/09	03/07/11	03/09/11	03/08/11
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5		55 J	12	18 J	800 D
Toluene	UG/L	5	4 J				
Trichloroethene	UG/L	5		2.0		2	18
Vinyl chloride	UG/L	2					13
Xylene (total)	UG/L	5	4 J				
Total Volatile Organic Compounds	UG/L	-	198	66.7	13	40	874

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-054D	DEC-055	DEC-055	DEC-055D	DEC-055D
Sample ID			DUP-030811	DEC-055	DEC-55	DEC-055D	DEC-55D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/08/11	07/09/09	03/07/11	07/09/09	03/07/11
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)				
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5					
1,1-Dichloroethene	UG/L	5					
1,2,3-Trichlorobenzene	UG/L	-		NA		NA	
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6					
1,2-Dichloroethene (cis)	UG/L	5	44				
1,2-Dichloroethene (trans)	UG/L	5	2 J				
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50					
Benzene	UG/L	1					
Chlorobenzene	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7		1.1		1.6	
Cyclohexane	UG/L	-					
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5	1 J				
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methyl tert-butyl ether	UG/L	10				0.85	1 J
Methylcyclohexane	UG/L	-	1 J				

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-054D	DEC-055	DEC-055	DEC-055D	DEC-055D
Sample ID			DUP-030811	DEC-055	DEC-55	DEC-055D	DEC-55D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/08/11	07/09/09	03/07/11	07/09/09	03/07/11
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)				
Volatile Organic Compounds							
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5	730 DJ	1.4	4	8.5	6
Toluene	UG/L	5					
Trichloroethene	UG/L	5	18			1.1 J	
Vinyl chloride	UG/L	2	14				
Xylene (total)	UG/L	5					
Total Volatile Organic Compounds	UG/L	-	810	2.5	4	12.05	7

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057* LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-056	DEC-056	DEC-057	DEC-057	DEC-057D
Sample ID			DEC-056	DEC-56	DEC-057	DEC-57	DEC-57D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/13/09	03/08/11	07/10/09	03/07/11	03/07/11
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5					1 J
1,1-Dichloroethene	UG/L	5					
1,2,3-Trichlorobenzene	UG/L	-	NA		NA		
1,2,4-Trichlorobenzene	UG/L	5					7
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6					
1,2-Dichloroethene (cis)	UG/L	5			710 D	72	5
1,2-Dichloroethene (trans)	UG/L	5			2.1	4 J	
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50					
Benzene	UG/L	1					
Chlorobenzene	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7					
Cyclohexane	UG/L	-			59	39 J	1 J
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5			12	8	
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methyl tert-butyl ether	UG/L	10			1.4		13
Methylcyclohexane	UG/L	-			110	68	

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-056	DEC-056	DEC-057	DEC-057	DEC-057D
Sample ID			DEC-056	DEC-56	DEC-057	DEC-57	DEC-57D
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/13/09	03/08/11	07/10/09	03/07/11	03/07/11
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5		5	44 J	19	76,000 D
Toluene	UG/L	5					
Trichloroethene	UG/L	5			2.7	3	59
Vinyl chloride	UG/L	2			180	610 D	
Xylene (total)	UG/L	5					
Total Volatile Organic Compounds	UG/L	-	ND	5	1,121.2	823	76,086

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

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Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057* LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-058	DEC-058D	DEC-059	DEC-059D	DEC-060
Sample ID			DEC-58	DEC-58D	DEC-59	DEC-59D	DEC-60
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/04/11	03/04/11	03/08/11	03/08/11	03/03/11
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					2 J
1,1-Dichloroethane	UG/L	5	1 J	1 J			5
1,1-Dichloroethene	UG/L	5	53	4			16
1,2,3-Trichlorobenzene	UG/L	-	1 J				
1,2,4-Trichlorobenzene	UG/L	5	3 J				
1,2-Dichlorobenzene	UG/L	3	3 J				
1,2-Dichloroethane	UG/L	0.6					
1,2-Dichloroethene (cis)	UG/L	5	14,000 D	860 DJ	2 J		6,900 D
1,2-Dichloroethene (trans)	UG/L	5	28	3 J			45
1,4-Dichlorobenzene	UG/L	3	8				
Acetone	UG/L	50					
Benzene	UG/L	1		1			
Chlorobenzene	UG/L	5	2 J				
Chloroethane	UG/L	5					
Chloroform	UG/L	7					6
Cyclohexane	UG/L	-	16	1 J			
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5	27				
Methyl ethyl ketone (2-Butanone)	UG/L	50				1 J	
Methyl tert-butyl ether	UG/L	10				2 J	4 J
Methylcyclohexane	UG/L	-	15				

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-058	DEC-058D	DEC-059	DEC-059D	DEC-060
Sample ID			DEC-58	DEC-58D	DEC-59	DEC-59D	DEC-60
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/04/11	03/04/11	03/08/11	03/08/11	03/03/11
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Methylene chloride	UG/L	5	1 J				2
Tetrachloroethene	UG/L	5	18,000 D	14,000 D	5	38	20,000 D
Toluene	UG/L	5	1 J	2 J			1 J
Trichloroethene	UG/L	5	3,700 D	870 D			3,300 D
Vinyl chloride	UG/L	2	3,200 D	82			160
Xylene (total)	UG/L	5	2 J				
Total Volatile Organic Compounds	UG/L	-	39,061	15,824	7	41	30,441

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

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[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-060D	DEC-061	DEC-061	DEC-061D	DEC-062
Sample ID			DEC-60D	DEC-61	DUP-030311	DEC-61D	DEC-062
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/03/11	03/03/11	03/03/11	03/03/11	03/04/11
Parameter	Units	Criteria*			Field Duplicate (1-1)		
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5	4 J				2 J
1,1-Dichloroethene	UG/L	5	12				
1,2,3-Trichlorobenzene	UG/L	-					
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6	4				
1,2-Dichloroethene (cis)	UG/L	5	3,800 D	270 D	320 D	7	4 J
1,2-Dichloroethene (trans)	UG/L	5	20				
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50	1 J				
Benzene	UG/L	1					
Chlorobenzene	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7	2 J				
Cyclohexane	UG/L	-					
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5					
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methyl tert-butyl ether	UG/L	10	1 J				
Methylcyclohexane	UG/L	-	14				

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-060D	DEC-061	DEC-061	DEC-061D	DEC-062
Sample ID			DEC-60D	DEC-61	DUP-030311	DEC-61D	DEC-062
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/03/11	03/03/11	03/03/11	03/03/11	03/04/11
Parameter	Units	Criteria*			Field Duplicate (1-1)		
Volatile Organic Compounds							
Methylene chloride	UG/L	5	2				
Tetrachloroethene	UG/L	5	19,000 D	730 D	900 D	4,500 D	31
Toluene	UG/L	5	2 J				
Trichloroethene	UG/L	5	1,600 D	260 D	320 D	12	13
Vinyl chloride	UG/L	2	240 J	2	2		
Xylene (total)	UG/L	5					
Total Volatile Organic Compounds	UG/L	-	24,702	1,262	1,542	4,519	50

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

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Concentration Exceeds Criteria

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Only Detected Results Reported.

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-062D	DEC-063	DEC-063D	MW-014	MW-014
Sample ID			DEC-62D	DEC-63	DEC-63D	MW-14	MW-014
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/04/11	03/07/11	03/03/11	06/25/07	12/17/07
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5			1 J		
1,1-Dichloroethene	UG/L	5					
1,2,3-Trichlorobenzene	UG/L	-				NA	NA
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6					
1,2-Dichloroethene (cis)	UG/L	5					
1,2-Dichloroethene (trans)	UG/L	5					
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50					
Benzene	UG/L	1					
Chlorobenzene	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7		4 J			
Cyclohexane	UG/L	-					
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5					
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methyl tert-butyl ether	UG/L	10			3 J		
Methylcyclohexane	UG/L	-					

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

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Concentration Exceeds Criteria

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Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			DEC-062D	DEC-063	DEC-063D	MW-014	MW-014
Sample ID			DEC-62D	DEC-63	DEC-63D	MW-14	MW-014
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			03/04/11	03/07/11	03/03/11	06/25/07	12/17/07
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5	3	3			
Toluene	UG/L	5					
Trichloroethene	UG/L	5					
Vinyl chloride	UG/L	2					
Xylene (total)	UG/L	5					
Total Volatile Organic Compounds	UG/L	-	3	7	4	ND	ND

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

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Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			MW-020	MW-020	MW-020	MW-081	MW-081
Sample ID			MW-20	121707-FD-03	MW-020	MW-081	DUP-070809
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/25/07	12/17/07	12/17/07	07/15/08	07/08/09
Parameter	**Units**	**Criteria***		Field Duplicate (1-1)			Field Duplicate (1-1)
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5					
1,1-Dichloroethene	UG/L	5					
1,2,3-Trichlorobenzene	UG/L	-	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6					
1,2-Dichloroethene (cis)	UG/L	5					
1,2-Dichloroethene (trans)	UG/L	5					
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50					
Benzene	UG/L	1					
Chlorobenzene	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7					
Cyclohexane	UG/L	-					
Ethylbenzene	UG/L	5					
Isopropylbenzene (Cumene)	UG/L	5					5.9
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methyl tert-butyl ether	UG/L	10	6.4	8.6	7.9		
Methylcyclohexane	UG/L	-					

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			MW-020	MW-020	MW-020	MW-081	MW-081
Sample ID			MW-20	121707-FD-03	MW-020	MW-081	DUP-070809
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			06/25/07	12/17/07	12/17/07	07/15/08	07/08/09
Parameter	**Units**	**Criteria***		Field Duplicate (1-1)			Field Duplicate (1-1)
Volatile Organic Compounds							
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5				2.0 J	
Toluene	UG/L	5					
Trichloroethene	UG/L	5					
Vinyl chloride	UG/L	2					
Xylene (total)	UG/L	5					
Total Volatile Organic Compounds	UG/L	-	6.4	8.6	7.9	2	5.9

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057* LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			MW-081	MW-083	MW-083	MW-085	MW-085
Sample ID			MW-81	MW-083	MW-83	MW-085	MW-85
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/08/09	07/15/08	07/08/09	07/15/08	07/07/09
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5					
1,1-Dichloroethene	UG/L	5					
1,2,3-Trichlorobenzene	UG/L	-	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6					
1,2-Dichloroethene (cis)	UG/L	5				36	20
1,2-Dichloroethene (trans)	UG/L	5					
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50		34		15	
Benzene	UG/L	1		940 D	130	110	40
Chlorobenzene	UG/L	5				4.4	13
Chloroethane	UG/L	5					
Chloroform	UG/L	7					
Cyclohexane	UG/L	-		220	240	50	24
Ethylbenzene	UG/L	5		16			
Isopropylbenzene (Cumene)	UG/L	5	6.3	20	16	11	7.9
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methyl tert-butyl ether	UG/L	10		4.1 J	4.9	1.0 J	0.56
Methylcyclohexane	UG/L	-		140	130	19	12

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

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[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			MW-081	MW-083	MW-083	MW-085	MW-085
Sample ID			MW-81	MW-083	MW-83	MW-085	MW-85
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/08/09	07/15/08	07/08/09	07/15/08	07/07/09
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5					
Toluene	UG/L	5		16	6.9	4.7	1.6
Trichloroethene	UG/L	5				1.6	
Vinyl chloride	UG/L	2				17	12
Xylene (total)	UG/L	5		30 J	10.9	10 J	3.2
Total Volatile Organic Compounds	UG/L	-	6.3	1,420.1	538.7	279.7	134.26

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			MW-087	MW-092	MW-092	MW-092	MW-095
Sample ID			MW-87	MW-92	MW-092	MW-092	MW-95
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/07/09	06/25/07	12/17/07	07/14/08	06/25/07
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	5					
1,1-Dichloroethane	UG/L	5		1.3 J	2.3 J	1.4	
1,1-Dichloroethene	UG/L	5			2.0 J		
1,2,3-Trichlorobenzene	UG/L	-	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	UG/L	5					
1,2-Dichlorobenzene	UG/L	3					
1,2-Dichloroethane	UG/L	0.6					
1,2-Dichloroethene (cis)	UG/L	5		19	45	18	
1,2-Dichloroethene (trans)	UG/L	5					
1,4-Dichlorobenzene	UG/L	3					
Acetone	UG/L	50					
Benzene	UG/L	1	2.4				25
Chlorobenzene	UG/L	5					
Chloroethane	UG/L	5					
Chloroform	UG/L	7					
Cyclohexane	UG/L	-	310				270
Ethylbenzene	UG/L	5	13				70
Isopropylbenzene (Cumene)	UG/L	5	20				7.6
Methyl ethyl ketone (2-Butanone)	UG/L	50					
Methyl tert-butyl ether	UG/L	10		5.0	7.8	10 J	
Methylcyclohexane	UG/L	-	270				230

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057*" LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			MW-087	MW-092	MW-092	MW-092	MW-095
Sample ID			MW-87	MW-92	MW-092	MW-092	MW-95
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			07/07/09	06/25/07	12/17/07	07/14/08	06/25/07
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
Methylene chloride	UG/L	5					
Tetrachloroethene	UG/L	5			3.0 J	1.2	
Toluene	UG/L	5	7.9				16
Trichloroethene	UG/L	5		69	150	64	
Vinyl chloride	UG/L	2			1.4 J		
Xylene (total)	UG/L	5	77.4				97 J
Total Volatile Organic Compounds	UG/L	-	700.7	94.3	211.5	94.6	715.6

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057* LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			MW-095	MW-095
Sample ID			MW-095	MW-095
Matrix			Groundwater	Groundwater
Depth Interval (ft)			-	-
Date Sampled			12/17/07	07/14/08
Parameter	**Units**	**Criteria***		
Volatile Organic Compounds				
1,1,1-Trichloroethane	UG/L	5		
1,1-Dichloroethane	UG/L	5		
1,1-Dichloroethene	UG/L	5		
1,2,3-Trichlorobenzene	UG/L	-	NA	NA
1,2,4-Trichlorobenzene	UG/L	5		
1,2-Dichlorobenzene	UG/L	3		
1,2-Dichloroethane	UG/L	0.6		
1,2-Dichloroethene (cis)	UG/L	5		
1,2-Dichloroethene (trans)	UG/L	5		
1,4-Dichlorobenzene	UG/L	3		
Acetone	UG/L	50		68
Benzene	UG/L	1	12	29
Chlorobenzene	UG/L	5		
Chloroethane	UG/L	5		
Chloroform	UG/L	7		
Cyclohexane	UG/L	-	370	300
Ethylbenzene	UG/L	5	140	63
Isopropylbenzene (Cumene)	UG/L	5	14	9.3
Methyl ethyl ketone (2-Butanone)	UG/L	50		
Methyl tert-butyl ether	UG/L	10		
Methylcyclohexane	UG/L	-	330	230

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

TABLE 4-7
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID			MW-095	MW-095
Sample ID			MW-095	MW-095
Matrix			Groundwater	Groundwater
Depth Interval (ft)			-	-
Date Sampled			12/17/07	07/14/08
Parameter	**Units**	**Criteria***		
Volatile Organic Compounds				
Methylene chloride	UG/L	5		
Tetrachloroethene	UG/L	5		
Toluene	UG/L	5	12	8.4
Trichloroethene	UG/L	5		
Vinyl chloride	UG/L	2		
Xylene (total)	UG/L	5	186 J	81 J
Total Volatile Organic Compounds	UG/L	-	1,064	788.7

*Criteria- NYSDEC TOGS (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. June 1998, including April 2000 and June 2004 Addenda, Class GA.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.

Only Detected Results Reported.

[MATRIX] = 'WG' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057* LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-8

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Parameter	Units	No. of Samples	No. of Detections	Range of Detections			Location of Max Value
				Min	Max	Avg	
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/L	86	4	1.00	4.00	2.00	DEC-036
1,1-Dichloroethane	UG/L	86	19	1.00	6.00	2.22	DEC-053
1,1-Dichloroethene	UG/L	86	10	2.00	53.00	11.31	DEC-058
1,2,3-Trichlorobenzene	UG/L	86	1	1.00	1.00	1.00	DEC-058
1,2,4-Trichlorobenzene	UG/L	86	2	3.00	7.00	5.00	DEC-057D
1,2-Dichlorobenzene	UG/L	86	1	3.00	3.00	3.00	DEC-058
1,2-Dichloroethane	UG/L	86	2	4.00	4.00	4.00	DEC-036D
1,2-Dichloroethene (cis)	UG/L	86	47	1.10	1.40E+04	871.7	DEC-058
1,2-Dichloroethene (trans)	UG/L	86	15	1.00	45.00	9.05	DEC-060
1,4-Dichlorobenzene	UG/L	86	1	8.00	8.00	8.00	DEC-058
Acetone	UG/L	86	7	1.00	68.00	27.57	MW-095
Benzene	UG/L	86	17	1.00	940.0	115.7	MW-083
Chlorobenzene	UG/L	86	6	2.00	13.00	6.07	MW-085
Chloroethane	UG/L	86	1	2.00	2.00	2.00	DEC-023
Chloroform	UG/L	86	13	1.00	17.00	4.32	DEC-003D
Cyclohexane	UG/L	86	28	1.00	1,100	216.6	DEC-023
Ethylbenzene	UG/L	86	10	1.00	140.0	33.90	MW-095
Isopropylbenzene (Cumene)	UG/L	86	29	1.00	120.0	31.24	DEC-024

Number of detections may be greater than the number of samples because field duplicates are not counted in the number of samples.

Only Detected Results Reported.

WHERE [MATRIX] = 'WG' AND (LOCID Like "dec-001*" Or LOCID Like "dec-002*" Or LOCID Like "dec-003*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-025*" Or LOCID Like "dec-034*" Or LOCID Like "dec-035*" Or LOCID Like "dec-036*" Or LOCID Like "dec-037*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-054*" Or LOCID Like "dec-055*" Or LOCID Like "dec-

TABLE 4-8

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN ALL GROUNDWATER SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Parameter	Units	No. of Samples	No. of Detections	Range of Detections			Location of Max Value
				Min	Max	Avg	
Volatile Organic Compounds							
Methyl ethyl ketone (2-Butanone)	UG/L	86	5	1.00	33.00	8.84	DEC-053
Methyl tert-butyl ether	UG/L	86	37	0.560	13.00	4.61	DEC-057D
Methylcyclohexane	UG/L	86	29	1.00	1,800	257.6	DEC-023
Methylene chloride	UG/L	86	5	1.00	3.20	2.14	DEC-003
Tetrachloroethene	UG/L	86	66	1.00	7.60E+04	3,400	DEC-057D
Toluene	UG/L	86	15	1.00	22.00	7.23	DEC-053
Trichloroethene	UG/L	86	48	1.10	3,700	394.0	DEC-058
Vinyl chloride	UG/L	86	22	1.40	3,200	241.4	DEC-058
Xylene (total)	UG/L	86	13	1.30	186.0	44.02	MW-095

Number of detections may be greater than the number of samples because field duplicates are not counted in the number of samples.

Only Detected Results Reported.

TABLE 4-9
SUMMARY OF DETECTED COMPOUNDS IN RI AMBIENT AIR AND SOIL GAS SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		AA-026	AA-027	SG-004	SG-005	SG-007
Sample ID		Ambient Air (34349)	Ambient Air (30855)	SG-04	SG-05	SG-07
Matrix		Outdoor Air	Outdoor Air	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		02/22/11	02/23/11	02/23/11	02/23/11	02/23/11
Parameter	**Units**					
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3			1,100		32
1,1-Dichloroethane	UG/M3					
1,2,4-Trimethylbenzene	UG/M3				0.74	
1,2-Dichloroethene (cis)	UG/M3					
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3					
1,3-Butadiene	UG/M3					
1,4-Dioxane	UG/M3					
2,2,4-Trimethylpentane	UG/M3					
Isopropyl alcohol	UG/M3		2.3		2.0	
4-Ethyltoluene	UG/M3					
Acetone	UG/M3	6.0	6.3		8.6	3.9
Benzene	UG/M3	0.95	1.2		0.56	
Carbon disulfide	UG/M3					
Carbon tetrachloride	UG/M3					
Chloroform	UG/M3			42		10
Chloromethane	UG/M3	1.0	1.1			
Cyclohexane	UG/M3					
Dichlorodifluoromethane	UG/M3	2.1	1.9 J		2.1 J	2.3
Ethanol	UG/M3	10 J	11		16	15 J
Ethylbenzene	UG/M3				0.81	
Heptane	UG/M3					
Isopropylbenzene (Cumene)	UG/M3					
Methyl ethyl ketone (2-Butanone)	UG/M3				3.0	

Flags assigned during chemistry validation are shown.

Blank cell - Not Detected. J - The reported concentration is an estimated value.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-9
SUMMARY OF DETECTED COMPOUNDS IN RI AMBIENT AIR AND SOIL GAS SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		AA-026	AA-027	SG-004	SG-005	SG-007
Sample ID		Ambient Air (34349)	Ambient Air (30855)	SG-04	SG-05	SG-07
Matrix		Outdoor Air	Outdoor Air	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		02/22/11	02/23/11	02/23/11	02/23/11	02/23/11
Parameter	**Units**					
Volatile Organic Compounds						
Methylene chloride	UG/M3	1.9	1.1		1.2	
n-Hexane	UG/M3	0.71	0.81			
n-Propylbenzene	UG/M3					
Tetrachloroethene	UG/M3			1,300	30	74
Toluene	UG/M3	5.1	2.9		6.1	1.2
Trichloroethene	UG/M3			32,000	0.92	90
Trichlorofluoromethane	UG/M3	1.4	1.3		1.3	1.2
Vinyl chloride	UG/M3					
Xylene (total)	UG/M3	1.0	1.2		3.7	0.69
Total Volatile Organic Compounds	UG/M3	30.16	31.11	34,442	77.03	230.29

Flags assigned during chemistry validation are shown.

Blank cell - Not Detected. J - The reported concentration is an estimated value.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-9
SUMMARY OF DETECTED COMPOUNDS IN RI AMBIENT AIR AND SOIL GAS SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-008	SG-014	SG-050	SG-051	SG-065
Sample ID		SG-08	SG-14	SG-50	SG-51	02222011-FD-1
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		02/23/11	02/23/11	02/23/11	02/23/11	02/22/11
Parameter	Units					Field Duplicate (1-1)
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3	3.6	1.4			
1,1-Dichloroethane	UG/M3					
1,2,4-Trimethylbenzene	UG/M3	0.91				
1,2-Dichloroethene (cis)	UG/M3					
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3					
1,3-Butadiene	UG/M3					
1,4-Dioxane	UG/M3					
2,2,4-Trimethylpentane	UG/M3					
Isopropyl alcohol	UG/M3			2.4		
4-Ethyltoluene	UG/M3	0.90				
Acetone	UG/M3	10	9.7	6.8		36
Benzene	UG/M3	2.6			2.7	
Carbon disulfide	UG/M3					
Carbon tetrachloride	UG/M3	1.3				
Chloroform	UG/M3	1.5	21			10
Chloromethane	UG/M3					
Cyclohexane	UG/M3				31	
Dichlorodifluoromethane	UG/M3	2.3	2.6 J	2.1 J		
Ethanol	UG/M3	24 J	6.9	15		
Ethylbenzene	UG/M3	0.97				
Heptane	UG/M3	0.84		0.61	5.8	
Isopropylbenzene (Cumene)	UG/M3					
Methyl ethyl ketone (2-Butanone)	UG/M3	2.8		3.3		

Flags assigned during chemistry validation are shown.

Blank cell - Not Detected. J - The reported concentration is an estimated value.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-9
SUMMARY OF DETECTED COMPOUNDS IN RI AMBIENT AIR AND SOIL GAS SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-008	SG-014	SG-050	SG-051	SG-065
Sample ID		SG-08	SG-14	SG-50	SG-51	02222011-FD-1
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		02/23/11	02/23/11	02/23/11	02/23/11	02/22/11
Parameter	Units					Field Duplicate (1-1)
Volatile Organic Compounds						
Methylene chloride	UG/M3					
n-Hexane	UG/M3				47	
n-Propylbenzene	UG/M3					
Tetrachloroethene	UG/M3	290	34	29	58	320
Toluene	UG/M3	4.8	2.1	4.2		7.1
Trichloroethene	UG/M3	41	22			1,500
Trichlorofluoromethane	UG/M3	1.1	1.1	1.5		
Vinyl chloride	UG/M3				2.2	
Xylene (total)	UG/M3	3.9	1.6	1.4		4.4
Total Volatile Organic Compounds	UG/M3	392.52	102.4	66.31	146.7	1,877.5

Flags assigned during chemistry validation are shown.

Blank cell - Not Detected. J - The reported concentration is an estimated value.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-9
SUMMARY OF DETECTED COMPOUNDS IN RI AMBIENT AIR AND SOIL GAS SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-065	SG-066	SG-067	SG-069	SG-069
Sample ID		SG-65	SG-66	SG-67	02232011-FD-1	SG-69
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		02/22/11	02/22/11	02/22/11	02/23/11	02/23/11
Parameter	Units				Field Duplicate (1-1)	
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3					
1,1-Dichloroethane	UG/M3					
1,2,4-Trimethylbenzene	UG/M3		3.4	100		
1,2-Dichloroethene (cis)	UG/M3					
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3			51		
1,3-Butadiene	UG/M3		2.7			
1,4-Dioxane	UG/M3					
2,2,4-Trimethylpentane	UG/M3			120		
Isopropyl alcohol	UG/M3					
4-Ethyltoluene	UG/M3		8.2	150		
Acetone	UG/M3	34	140		100	99
Benzene	UG/M3		51	440		
Carbon disulfide	UG/M3		30			
Carbon tetrachloride	UG/M3					
Chloroform	UG/M3	9.7	7.5			
Chloromethane	UG/M3					
Cyclohexane	UG/M3		2.4			
Dichlorodifluoromethane	UG/M3					
Ethanol	UG/M3		13 J			
Ethylbenzene	UG/M3		46	320		
Heptane	UG/M3		42	290		
Isopropylbenzene (Cumene)	UG/M3		3.7			
Methyl ethyl ketone (2-Butanone)	UG/M3					

Flags assigned during chemistry validation are shown.

Blank cell - Not Detected. J - The reported concentration is an estimated value.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-9
SUMMARY OF DETECTED COMPOUNDS IN RI AMBIENT AIR AND SOIL GAS SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-065	SG-066	SG-067	SG-069	SG-069
Sample ID		SG-65	SG-66	SG-67	02232011-FD-1	SG-69
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		02/22/11	02/22/11	02/22/11	02/23/11	02/23/11
Parameter	Units				Field Duplicate (1-1)	
Volatile Organic Compounds						
Methylene chloride	UG/M3					
n-Hexane	UG/M3		9.1	46		
n-Propylbenzene	UG/M3		2.9			
Tetrachloroethene	UG/M3	330	330	18,000	12,000	12,000
Toluene	UG/M3	7.5	430	3,500	23	24
Trichloroethene	UG/M3	1,400			200	190
Trichlorofluoromethane	UG/M3					
Vinyl chloride	UG/M3					
Xylene (total)	UG/M3		150	1,300		
Total Volatile Organic Compounds	UG/M3	1,781.2	1,271.9	24,317	12,323	12,313

Flags assigned during chemistry validation are shown.

Blank cell - Not Detected. J - The reported concentration is an estimated value.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-9
SUMMARY OF DETECTED COMPOUNDS IN RI AMBIENT AIR AND SOIL GAS SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-070	SG-071	SG-072	SG-073	SG-074
Sample ID		SG-70	SG-71	SG-72	SG-73	SG-74
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		02/22/11	02/22/11	02/23/11	02/22/11	02/22/11
Parameter	**Units**					
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3			44		
1,1-Dichloroethane	UG/M3			5.3		
1,2,4-Trimethylbenzene	UG/M3	13				33
1,2-Dichloroethene (cis)	UG/M3			88		
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	6.8				14
1,3-Butadiene	UG/M3					
1,4-Dioxane	UG/M3	26				
2,2,4-Trimethylpentane	UG/M3				67	
Isopropyl alcohol	UG/M3					
4-Ethyltoluene	UG/M3	14				33
Acetone	UG/M3	13		48		52
Benzene	UG/M3	29			81	58
Carbon disulfide	UG/M3					
Carbon tetrachloride	UG/M3					
Chloroform	UG/M3					
Chloromethane	UG/M3					
Cyclohexane	UG/M3					
Dichlorodifluoromethane	UG/M3					
Ethanol	UG/M3	12 J		17		10 J
Ethylbenzene	UG/M3	26				55
Heptane	UG/M3	12			75	14
Isopropylbenzene (Cumene)	UG/M3					3.5
Methyl ethyl ketone (2-Butanone)	UG/M3					

Flags assigned during chemistry validation are shown.

Blank cell - Not Detected. J - The reported concentration is an estimated value.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-9
SUMMARY OF DETECTED COMPOUNDS IN RI AMBIENT AIR AND SOIL GAS SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-070	SG-071	SG-072	SG-073	SG-074
Sample ID		SG-70	SG-71	SG-72	SG-73	SG-74
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		02/22/11	02/22/11	02/23/11	02/22/11	02/22/11
Parameter	**Units**					
Volatile Organic Compounds						
Methylene chloride	UG/M3					
n-Hexane	UG/M3	2.3				4.0
n-Propylbenzene	UG/M3	3.5				7.2
Tetrachloroethene	UG/M3	1,100	8,200,000	92	24,000	1,200
Toluene	UG/M3	220		13	470	480
Trichloroethene	UG/M3	5.8		1,300		
Trichlorofluoromethane	UG/M3					
Vinyl chloride	UG/M3					
Xylene (total)	UG/M3	110		7.6	220	250
Total Volatile Organic Compounds	UG/M3	1,593.4	8,200,000	1,614.9	24,913	2,213.7

Flags assigned during chemistry validation are shown.

Blank cell - Not Detected. J - The reported concentration is an estimated value.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-9
SUMMARY OF DETECTED COMPOUNDS IN RI AMBIENT AIR AND SOIL GAS SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-075	SG-076	SG-077
Sample ID		SG-75	SG-76	SG-77
Matrix		Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-
Date Sampled		02/23/11	02/23/11	02/22/11
Parameter	Units			
Volatile Organic Compounds				
1,1,1-Trichloroethane	UG/M3	44	6.6	
1,1-Dichloroethane	UG/M3	1.4		
1,2,4-Trimethylbenzene	UG/M3	23	3.5	
1,2-Dichloroethene (cis)	UG/M3	1.3		
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	0.97		
1,3-Butadiene	UG/M3			
1,4-Dioxane	UG/M3			
2,2,4-Trimethylpentane	UG/M3			
Isopropyl alcohol	UG/M3			
4-Ethyltoluene	UG/M3	3.1	1.8	
Acetone	UG/M3	45	44	7.8
Benzene	UG/M3	2.4	2.2	1.0
Carbon disulfide	UG/M3	4.1		
Carbon tetrachloride	UG/M3	1.4		
Chloroform	UG/M3	41	33	
Chloromethane	UG/M3			0.98
Cyclohexane	UG/M3		1.2	
Dichlorodifluoromethane	UG/M3	2.0	3.4 J	2.1
Ethanol	UG/M3	7.1 J	14	9.4 J
Ethylbenzene	UG/M3	4.0	2.1	
Heptane	UG/M3	3.5	3.0	0.82
Isopropylbenzene (Cumene)	UG/M3			
Methyl ethyl ketone (2-Butanone)	UG/M3		3.6	

Flags assigned during chemistry validation are shown.

Blank cell - Not Detected. J - The reported concentration is an estimated value.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-9
SUMMARY OF DETECTED COMPOUNDS IN RI AMBIENT AIR AND SOIL GAS SAMPLES
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-075	SG-076	SG-077
Sample ID		SG-75	SG-76	SG-77
Matrix		Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-
Date Sampled		02/23/11	02/23/11	02/22/11
Parameter	**Units**			
Volatile Organic Compounds				
Methylene chloride	UG/M3			4.8
n-Hexane	UG/M3	1.0	3.4	0.86
n-Propylbenzene	UG/M3			
Tetrachloroethene	UG/M3	160	180	110
Toluene	UG/M3	36	14	4.9
Trichloroethene	UG/M3	310	290	
Trichlorofluoromethane	UG/M3	1.2	1.4	1.4
Vinyl chloride	UG/M3			
Xylene (total)	UG/M3	15	10	1.4
Total Volatile Organic Compounds	UG/M3	707.47	617.2	145.46

Flags assigned during chemistry validation are shown.

Blank cell - Not Detected. J - The reported concentration is an estimated value.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-10

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI AMBIENT AIR AND SOIL-GAS SAMPLES FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Parameter	Units	No. of Samples	No. of Detections	Range of Detections			Location of Max Value
				Min	Max	Avg	
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/M3	21	7	1.40	1,100	175.9	SG-004
1,1-Dichloroethane	UG/M3	21	2	1.40	5.30	3.35	SG-072
1,2,4-Trimethylbenzene	UG/M3	21	8	0.740	100.0	22.19	SG-067
1,2-Dichloroethene (cis)	UG/M3	21	2	1.30	88.00	44.65	SG-072
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	21	4	0.970	51.00	18.19	SG-067
1,3-Butadiene	UG/M3	21	1	2.70	2.70	2.70	SG-066
1,4-Dioxane	UG/M3	21	1	26.00	26.00	26.00	SG-070
2,2,4-Trimethylpentane	UG/M3	21	2	67.00	120.0	93.50	SG-067
Isopropyl alcohol	UG/M3	21	3	2.00	2.40	2.23	SG-050
4-Ethyltoluene	UG/M3	21	7	0.900	150.0	30.14	SG-067
Acetone	UG/M3	21	18	3.90	140.0	37.23	SG-066
Benzene	UG/M3	21	13	0.560	440.0	51.74	SG-067
Carbon disulfide	UG/M3	21	2	4.10	30.00	17.05	SG-066
Carbon tetrachloride	UG/M3	21	2	1.30	1.40	1.35	SG-075
Chloroform	UG/M3	21	9	1.50	42.00	19.52	SG-004
Chloromethane	UG/M3	21	3	0.980	1.10	1.03	AA-027
Cyclohexane	UG/M3	21	3	1.20	31.00	11.53	SG-051
Dichlorodifluoromethane	UG/M3	21	10	1.90	3.40	2.29	SG-076

Number of detections may be greater than the number of samples because field duplicates are not counted in the number of samples.

Only Detected Results Reported.

TABLE 4-10

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN RI AMBIENT AIR AND SOIL-GAS SAMPLES FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Parameter	Units	No. of Samples	No. of Detections	Range of Detections			Location of Max Value
				Min	Max	Avg	
Volatile Organic Compounds							
Ethanol	UG/M3	21	14	6.90	24.00	12.89	SG-008
Ethylbenzene	UG/M3	21	8	0.810	320.0	56.86	SG-067
Heptane	UG/M3	21	11	0.610	290.0	40.69	SG-067
Isopropylbenzene (Cumene)	UG/M3	21	2	3.50	3.70	3.60	SG-066
Methyl ethyl ketone (2-Butanone)	UG/M3	21	4	2.80	3.60	3.18	SG-076
Methylene chloride	UG/M3	21	4	1.10	4.80	2.25	SG-077
n-Hexane	UG/M3	21	10	0.710	47.00	11.52	SG-051
n-Propylbenzene	UG/M3	21	3	2.90	7.20	4.53	SG-074
Tetrachloroethene	UG/M3	21	21	29.00	8.20E+06	3.94E+05	SG-071
Toluene	UG/M3	21	20	1.20	3,500	262.8	SG-067
Trichloroethene	UG/M3	21	13	0.920	3.20E+04	2,873	SG-004
Trichlorofluoromethane	UG/M3	21	10	1.10	1.50	1.29	SG-050
Vinyl chloride	UG/M3	21	1	2.20	2.20	2.20	SG-051
Xylene (total)	UG/M3	21	17	0.690	1,300	122.5	SG-067

Number of detections may be greater than the number of samples because field duplicates are not counted in the number of samples.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		MP-008D	MP-008D	MP-018D	MP-018D	MP-021
Sample ID		MP-08D	MP-08D	MP-18 7-8	MP-18D	MP-21
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	7.0-8.0	-	-
Date Sampled		06/12/07	12/06/07	06/12/07	12/06/07	06/12/07
Parameter	**Units**					
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3			29	12	2.0 J
1,1,2,2-Tetrachloroethane	UG/M3					
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3	140				0.92
1,1,2-Trichloroethane	UG/M3					
1,1-Dichloroethane	UG/M3					
1,1-Dichloroethene	UG/M3					
1,2,4-Trimethylbenzene	UG/M3	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	UG/M3					
1,2-Dibromoethane (Ethylene dibromide)	UG/M3					
1,2-Dichlorobenzene	UG/M3					
1,2-Dichloroethane	UG/M3					
1,2-Dichloroethene (cis)	UG/M3					
1,2-Dichloroethene (trans)	UG/M3					
1,2-Dichloropropane	UG/M3					
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	NA	NA	NA	NA	NA
1,3-Butadiene	UG/M3	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	UG/M3					
1,3-Dichloropropene (cis)	UG/M3					
1,3-Dichloropropene (trans)	UG/M3					
1,4-Dichlorobenzene	UG/M3					
1,4-Dioxane	UG/M3	NA	NA	NA	NA	NA
2,2,4-Trimethylpentane	UG/M3	NA	NA	NA	NA	NA

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

[MATRIX] = 'GS' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057* LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		MP-008D	MP-008D	MP-018D	MP-018D	MP-021
Sample ID		MP-08D	MP-08D	MP-18 7-8	MP-18D	MP-21
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	7.0-8.0	-	-
Date Sampled		06/12/07	12/06/07	06/12/07	12/06/07	06/12/07
Parameter	**Units**					
Volatile Organic Compounds						
2-Hexanone	UG/M3				3.7	
Isopropyl alcohol	UG/M3	NA	NA	NA	NA	NA
4-Ethyltoluene	UG/M3	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	UG/M3				7.4	
Acetone	UG/M3			51 J	29	
Benzene	UG/M3	18,000	640		2.1	1.6
Bromodichloromethane	UG/M3					
Bromoform	UG/M3					
Carbon disulfide	UG/M3	440				5.9
Carbon tetrachloride	UG/M3	63 J				0.38 J
Chlorobenzene	UG/M3					
Chloroethane	UG/M3			6.3 J		
Chloroform	UG/M3			5.8	2.4	3.8
Chloromethane	UG/M3	120 J				3.8 J
Cyclohexane	UG/M3	98,000	24,000 D			5.6
Dibromochloromethane	UG/M3					
Dichlorodifluoromethane	UG/M3	370 J	5.9			3.7 J
Ethanol	UG/M3	NA	NA	NA	NA	NA
Ethylbenzene	UG/M3	230		6.1	1.7	3.3
Heptane	UG/M3	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)	UG/M3					
Methyl ethyl ketone (2-Butanone)	UG/M3	360		8.8	8.1	

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		MP-008D	MP-008D	MP-018D	MP-018D	MP-021
Sample ID		MP-08D	MP-08D	MP-18 7-8	MP-18D	MP-21
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	7.0-8.0	-	-
Date Sampled		06/12/07	12/06/07	06/12/07	12/06/07	06/12/07
Parameter	**Units**					
Volatile Organic Compounds						
Methyl tert-butyl ether	UG/M3					
Methylcyclohexane	UG/M3	160,000	12,000 D		3.3	9.1
Methylene chloride	UG/M3	4,700		8.3		3.8
n-Hexane	UG/M3	NA	NA	NA	NA	NA
n-Propylbenzene	UG/M3	NA	NA	NA	NA	NA
Styrene	UG/M3	110				1.0
Tetrachloroethene	UG/M3			510	34	150
Toluene	UG/M3	320	14	14	17	7.2
Trichloroethene	UG/M3		7.5	130	17	
Trichlorofluoromethane	UG/M3	2,000 J		9.0 J	2.5	4.0 J
Vinyl chloride	UG/M3					
Xylene (total)	UG/M3	396		35	7.6	20
Total Volatile Organic Compounds	UG/M3	285,249	36,667.4	813.3	147.8	226.1

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		MP-021	MP-024	MP-024	MP-025	MP-025
Sample ID		MP-21	MP-24	MP-24	MP-25	MP-25
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/06/07	06/12/07	12/06/07	06/12/07	12/06/07
Parameter	**Units**					
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3	0.49	5.8 J	0.65	0.82 J	0.38
1,1,2,2-Tetrachloroethane	UG/M3					
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3		1.2	0.54	1.1	0.54
1,1,2-Trichloroethane	UG/M3					
1,1-Dichloroethane	UG/M3					
1,1-Dichloroethene	UG/M3					
1,2,4-Trimethylbenzene	UG/M3	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	UG/M3					
1,2-Dibromoethane (Ethylene dibromide)	UG/M3					
1,2-Dichlorobenzene	UG/M3					
1,2-Dichloroethane	UG/M3					
1,2-Dichloroethene (cis)	UG/M3					
1,2-Dichloroethene (trans)	UG/M3					
1,2-Dichloropropane	UG/M3					
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	NA	NA	NA	NA	NA
1,3-Butadiene	UG/M3	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	UG/M3	0.66				
1,3-Dichloropropene (cis)	UG/M3					
1,3-Dichloropropene (trans)	UG/M3					
1,4-Dichlorobenzene	UG/M3		0.66		0.42	
1,4-Dioxane	UG/M3	NA	NA	NA	NA	NA
2,2,4-Trimethylpentane	UG/M3	NA	NA	NA	NA	NA

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

[MATRIX] = 'GS' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057* LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		MP-021	MP-024	MP-024	MP-025	MP-025
Sample ID		MP-21	MP-24	MP-24	MP-25	MP-25
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/06/07	06/12/07	12/06/07	06/12/07	12/06/07
Parameter	**Units**					
Volatile Organic Compounds						
2-Hexanone	UG/M3			2.0		
Isopropyl alcohol	UG/M3	NA	NA	NA	NA	NA
4-Ethyltoluene	UG/M3	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	UG/M3	9.9		3.5		2.7
Acetone	UG/M3	39	51 J	17	64 J	15
Benzene	UG/M3	1.8	0.48	0.93	0.35	0.83
Bromodichloromethane	UG/M3		0.80			
Bromoform	UG/M3					
Carbon disulfide	UG/M3		6.6	0.81	6.7	0.97
Carbon tetrachloride	UG/M3				0.38 J	
Chlorobenzene	UG/M3			0.28		
Chloroethane	UG/M3					
Chloroform	UG/M3	0.39	12	3.3	2.5	1.2
Chloromethane	UG/M3		0.99 J			
Cyclohexane	UG/M3		0.62		0.38	
Dibromochloromethane	UG/M3					
Dichlorodifluoromethane	UG/M3		4.0 J	3.0	4.6 J	3.0
Ethanol	UG/M3	NA	NA	NA	NA	NA
Ethylbenzene	UG/M3	2.0	7.1	0.95	4.5	0.82
Heptane	UG/M3	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)	UG/M3					
Methyl ethyl ketone (2-Butanone)	UG/M3	9.6	4.8	4.5	6.8	3.9

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		MP-021	MP-024	MP-024	MP-025	MP-025
Sample ID		MP-21	MP-24	MP-24	MP-25	MP-25
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/06/07	06/12/07	12/06/07	06/12/07	12/06/07
Parameter	**Units**					
Volatile Organic Compounds						
Methyl tert-butyl ether	UG/M3					
Methylcyclohexane	UG/M3	3.4	0.84	2.7		2.4
Methylene chloride	UG/M3				1.8	
n-Hexane	UG/M3	NA	NA	NA	NA	NA
n-Propylbenzene	UG/M3	NA	NA	NA	NA	NA
Styrene	UG/M3		2.0		1.2	
Tetrachloroethene	UG/M3	3.3	82	4.3	66	4.8
Toluene	UG/M3	21	16	12	9.2	9.0
Trichloroethene	UG/M3		0.70		0.32	
Trichlorofluoromethane	UG/M3		12 J	2.6	5.1 J	1.6
Vinyl chloride	UG/M3					
Xylene (total)	UG/M3	9.0	41	4.2	27	3.6
Total Volatile Organic Compounds	UG/M3	100.54	250.59	63.26	203.17	50.74

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		MP-026	MP-026	SG-001	SG-001	SG-002
Sample ID		MP-26	MP-26	SG-01	SG-01	SG-02
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		06/12/07	12/06/07	06/14/07	12/06/07	06/14/07
Parameter	**Units**					
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3	0.82 J		0.93	0.49	1.3
1,1,2,2-Tetrachloroethane	UG/M3					
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3	0.84	0.54	0.77	0.84	0.92
1,1,2-Trichloroethane	UG/M3					
1,1-Dichloroethane	UG/M3					
1,1-Dichloroethene	UG/M3					
1,2,4-Trimethylbenzene	UG/M3	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	UG/M3					
1,2-Dibromoethane (Ethylene dibromide)	UG/M3					
1,2-Dichlorobenzene	UG/M3					
1,2-Dichloroethane	UG/M3					
1,2-Dichloroethene (cis)	UG/M3					
1,2-Dichloroethene (trans)	UG/M3					
1,2-Dichloropropane	UG/M3					
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	NA	NA	NA	NA	NA
1,3-Butadiene	UG/M3	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	UG/M3				0.30	
1,3-Dichloropropene (cis)	UG/M3					
1,3-Dichloropropene (trans)	UG/M3					
1,4-Dichlorobenzene	UG/M3			0.30		
1,4-Dioxane	UG/M3	NA	NA	NA	NA	NA
2,2,4-Trimethylpentane	UG/M3	NA	NA	NA	NA	NA

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		MP-026	MP-026	SG-001	SG-001	SG-002
Sample ID		MP-26	MP-26	SG-01	SG-01	SG-02
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		06/12/07	12/06/07	06/14/07	12/06/07	06/14/07
Parameter	**Units**					
Volatile Organic Compounds						
2-Hexanone	UG/M3					
Isopropyl alcohol	UG/M3	NA	NA	NA	NA	NA
4-Ethyltoluene	UG/M3	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	UG/M3		3.1		6.4	
Acetone	UG/M3	53 J	18	43 J	21	
Benzene	UG/M3	0.22	0.83	0.32	1.3	0.29
Bromodichloromethane	UG/M3					6.2
Bromoform	UG/M3					
Carbon disulfide	UG/M3	2.6	0.53	3.3	0.22	1.7
Carbon tetrachloride	UG/M3	1.0 J		0.69	0.31	0.50
Chlorobenzene	UG/M3					
Chloroethane	UG/M3					
Chloroform	UG/M3	68	6.3	8.4	3.2	330
Chloromethane	UG/M3			2.6	0.95	0.19
Cyclohexane	UG/M3	0.21				0.24
Dibromochloromethane	UG/M3					0.51
Dichlorodifluoromethane	UG/M3	10 J	3.6	4.1 J	2.9	5.9 J
Ethanol	UG/M3	NA	NA	NA	NA	NA
Ethylbenzene	UG/M3	3.4	0.78	2.0	1.4	2.1
Heptane	UG/M3	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)	UG/M3					
Methyl ethyl ketone (2-Butanone)	UG/M3	4.8	3.9	5.6	5.7	3.5

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		MP-026	MP-026	SG-001	SG-001	SG-002
Sample ID		MP-26	MP-26	SG-01	SG-01	SG-02
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		06/12/07	12/06/07	06/14/07	12/06/07	06/14/07
Parameter	**Units**					
Volatile Organic Compounds						
Methyl tert-butyl ether	UG/M3					
Methylcyclohexane	UG/M3		2.6		2.6	
Methylene chloride	UG/M3	1.5			4.4	
n-Hexane	UG/M3	NA	NA	NA	NA	NA
n-Propylbenzene	UG/M3	NA	NA	NA	NA	NA
Styrene	UG/M3	0.94		8.6		5.7
Tetrachloroethene	UG/M3	84	3.7	69	8.0	97
Toluene	UG/M3	6.5	11	1.4	21	0.87
Trichloroethene	UG/M3			0.81	0.59	1.5
Trichlorofluoromethane	UG/M3	5.8 J	1.5	4.0 J	1.6	6.0 J
Vinyl chloride	UG/M3					
Xylene (total)	UG/M3	20	3.6	4.3	6.3	5.4
Total Volatile Organic Compounds	UG/M3	263.63	59.98	160.12	89.5	469.82

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-002	SG-003	SG-003	SG-004	SG-004
Sample ID		SG-02	SG-03	SG-03	SG-04	120607-FD-01
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/06/07	06/14/07	12/06/07	06/14/07	12/06/07
Parameter	Units					Field Duplicate (1-1)
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3	0.38	3.3	2.2	5.2	
1,1,2,2-Tetrachloroethane	UG/M3					
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3	0.69	0.84	0.54	0.77	0.61
1,1,2-Trichloroethane	UG/M3					
1,1-Dichloroethane	UG/M3					
1,1-Dichloroethene	UG/M3					
1,2,4-Trimethylbenzene	UG/M3	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	UG/M3					
1,2-Dibromoethane (Ethylene dibromide)	UG/M3					
1,2-Dichlorobenzene	UG/M3					
1,2-Dichloroethane	UG/M3					
1,2-Dichloroethene (cis)	UG/M3				1.7	
1,2-Dichloroethene (trans)	UG/M3					
1,2-Dichloropropane	UG/M3					
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	NA	NA	NA	NA	NA
1,3-Butadiene	UG/M3	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	UG/M3					0.48
1,3-Dichloropropene (cis)	UG/M3					
1,3-Dichloropropene (trans)	UG/M3					
1,4-Dichlorobenzene	UG/M3					
1,4-Dioxane	UG/M3	NA	NA	NA	NA	NA
2,2,4-Trimethylpentane	UG/M3	NA	NA	NA	NA	NA

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-002	SG-003	SG-003	SG-004	SG-004
Sample ID		SG-02	SG-03	SG-03	SG-04	120607-FD-01
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/06/07	06/14/07	12/06/07	06/14/07	12/06/07
Parameter	**Units**					Field Duplicate (1-1)
Volatile Organic Compounds						
2-Hexanone	UG/M3					1.3
Isopropyl alcohol	UG/M3	NA	NA	NA	NA	NA
4-Ethyltoluene	UG/M3	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	UG/M3	5.4		3.0		3.0
Acetone	UG/M3	19	19 J	13	78 J	20
Benzene	UG/M3	1.1		0.86	1.2	1.8
Bromodichloromethane	UG/M3	1.5				
Bromoform	UG/M3					
Carbon disulfide	UG/M3	0.22	4.5		1.2	
Carbon tetrachloride	UG/M3	0.44	0.31		0.75	0.50
Chlorobenzene	UG/M3					
Chloroethane	UG/M3					
Chloroform	UG/M3	81	65	13	3.5	
Chloromethane	UG/M3		0.50	0.12	1.2	1.1
Cyclohexane	UG/M3				0.48	
Dibromochloromethane	UG/M3					
Dichlorodifluoromethane	UG/M3	2.8	6.7 J	6.3	3.9 J	2.7
Ethanol	UG/M3	NA	NA	NA	NA	NA
Ethylbenzene	UG/M3	1.2	2.4	1.0	2.5	1.5
Heptane	UG/M3	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)	UG/M3					
Methyl ethyl ketone (2-Butanone)	UG/M3	4.5	2.7	3.7	11	3.1

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-002	SG-003	SG-003	SG-004	SG-004
Sample ID		SG-02	SG-03	SG-03	SG-04	120607-FD-01
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/06/07	06/14/07	12/06/07	06/14/07	12/06/07
Parameter	Units					Field Duplicate (1-1)
Volatile Organic Compounds						
Methyl tert-butyl ether	UG/M3				0.43	
Methylcyclohexane	UG/M3	2.5		1.4		1.4
Methylene chloride	UG/M3	4.7				
n-Hexane	UG/M3	NA	NA	NA	NA	NA
n-Propylbenzene	UG/M3	NA	NA	NA	NA	NA
Styrene	UG/M3		3.5		1.0	
Tetrachloroethene	UG/M3	7.1	130	17	36	5.0
Toluene	UG/M3	12	1.1	9.2	18	28
Trichloroethene	UG/M3	0.70		0.54	330	0.38
Trichlorofluoromethane	UG/M3	1.8	5.3 J	2.5	3.7 J	1.4
Vinyl chloride	UG/M3					
Xylene (total)	UG/M3	5.3	8.4	4.4	9.0	6.7
Total Volatile Organic Compounds	UG/M3	152.33	253.55	78.76	509.53	78.97

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-004	SG-004	SG-005	SG-005	SG-005
Sample ID		SG-04	SG-04	SG-05	SG-05	SG-05
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/06/07	02/23/11	06/14/07	12/06/07	02/23/11
Parameter	**Units**					
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3	30	1,100	4.5	1.2	
1,1,2,2-Tetrachloroethane	UG/M3			1.1		
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3	0.54		0.92	0.54	
1,1,2-Trichloroethane	UG/M3			1.2		
1,1-Dichloroethane	UG/M3	0.24		1.7		
1,1-Dichloroethene	UG/M3	0.32		1.7		
1,2,4-Trimethylbenzene	UG/M3	NA		NA	NA	0.74
1,2-Dibromo-3-chloropropane	UG/M3		NA	1.4		NA
1,2-Dibromoethane (Ethylene dibromide)	UG/M3			1.2		
1,2-Dichlorobenzene	UG/M3			1.6		
1,2-Dichloroethane	UG/M3			2.1 J		
1,2-Dichloroethene (cis)	UG/M3	0.28		1.6		
1,2-Dichloroethene (trans)	UG/M3			1.7		
1,2-Dichloropropane	UG/M3			1.2		
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	NA		NA	NA	
1,3-Butadiene	UG/M3	NA		NA	NA	
1,3-Dichlorobenzene	UG/M3	0.48				
1,3-Dichloropropene (cis)	UG/M3			1.3		
1,3-Dichloropropene (trans)	UG/M3			1.2		
1,4-Dichlorobenzene	UG/M3			1.8		
1,4-Dioxane	UG/M3	NA		NA	NA	
2,2,4-Trimethylpentane	UG/M3	NA		NA	NA	

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

[MATRIX] = 'GS' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057* LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-004	SG-004	SG-005	SG-005	SG-005
Sample ID		SG-04	SG-04	SG-05	SG-05	SG-05
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/06/07	02/23/11	06/14/07	12/06/07	02/23/11
Parameter	**Units**					
Volatile Organic Compounds						
2-Hexanone	UG/M3				1.4	
Isopropyl alcohol	UG/M3	NA		NA	NA	2.0
4-Ethyltoluene	UG/M3	NA		NA	NA	
4-Methyl-2-pentanone	UG/M3	4.9		9.7	4.3	
Acetone	UG/M3	24		39 J	13	8.6
Benzene	UG/M3	2.7		1.3	0.70	0.56
Bromodichloromethane	UG/M3			1.6		
Bromoform	UG/M3			1.2 J		
Carbon disulfide	UG/M3	0.56		2.7		
Carbon tetrachloride	UG/M3	0.44		1.9		
Chlorobenzene	UG/M3			1.3		
Chloroethane	UG/M3					
Chloroform	UG/M3	1.5	42	3.0		
Chloromethane	UG/M3	0.19				
Cyclohexane	UG/M3					
Dibromochloromethane	UG/M3			1.4		
Dichlorodifluoromethane	UG/M3			6.8 J	2.7	2.1 J
Ethanol	UG/M3	NA		NA	NA	16
Ethylbenzene	UG/M3	1.7		2.2	1.3	0.81
Heptane	UG/M3	NA		NA	NA	
Isopropylbenzene (Cumene)	UG/M3			1.6		
Methyl ethyl ketone (2-Butanone)	UG/M3	4.0		13	3.7	3.0

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-004	SG-004	SG-005	SG-005	SG-005
Sample ID		SG-04	SG-04	SG-05	SG-05	SG-05
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/06/07	02/23/11	06/14/07	12/06/07	02/23/11
Parameter	**Units**					
Volatile Organic Compounds						
Methyl tert-butyl ether	UG/M3			1.7		
Methylcyclohexane	UG/M3	2.2	NA		1.4	NA
Methylene chloride	UG/M3					1.2
n-Hexane	UG/M3	NA		NA	NA	
n-Propylbenzene	UG/M3	NA		NA	NA	
Styrene	UG/M3			2.3		
Tetrachloroethene	UG/M3	7.9	1,300	170	20	30
Toluene	UG/M3	27		2.2	11	6.1
Trichloroethene	UG/M3	27	32,000	5.4	1.9	0.92
Trichlorofluoromethane	UG/M3	0.51		75 J	1.8	1.3
Vinyl chloride	UG/M3					
Xylene (total)	UG/M3	7.4		9.9	5.9	3.7
Total Volatile Organic Compounds	UG/M3	143.86	34,442	379.42	70.84	77.03

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-006	SG-006	SG-006	SG-007	SG-007
Sample ID		061507-FD-01	SG-06	SG-06	SG-07	SG-07
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		06/15/07	06/15/07	12/06/07	06/14/07	12/06/07
Parameter	**Units**	Field Duplicate (1-1)				
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3	3.3	1.6	0.76	140	140
1,1,2,2-Tetrachloroethane	UG/M3					
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3	1.2	1.1	0.77	1.1	
1,1,2-Trichloroethane	UG/M3					
1,1-Dichloroethane	UG/M3				3.7	4.0
1,1-Dichloroethene	UG/M3					
1,2,4-Trimethylbenzene	UG/M3	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	UG/M3					
1,2-Dibromoethane (Ethylene dibromide)	UG/M3					
1,2-Dichlorobenzene	UG/M3					
1,2-Dichloroethane	UG/M3					
1,2-Dichloroethene (cis)	UG/M3				2.3	1.2
1,2-Dichloroethene (trans)	UG/M3					
1,2-Dichloropropane	UG/M3					
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	NA	NA	NA	NA	NA
1,3-Butadiene	UG/M3	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	UG/M3			0.42		0.30
1,3-Dichloropropene (cis)	UG/M3					
1,3-Dichloropropene (trans)	UG/M3					
1,4-Dichlorobenzene	UG/M3					
1,4-Dioxane	UG/M3	NA	NA	NA	NA	NA
2,2,4-Trimethylpentane	UG/M3	NA	NA	NA	NA	NA

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-006	SG-006	SG-006	SG-007	SG-007
Sample ID		061507-FD-01	SG-06	SG-06	SG-07	SG-07
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		06/15/07	06/15/07	12/06/07	06/14/07	12/06/07
Parameter	**Units**	Field Duplicate (1-1)				
Volatile Organic Compounds						
2-Hexanone	UG/M3	1.6				
Isopropyl alcohol	UG/M3	NA	NA	NA	NA	NA
4-Ethyltoluene	UG/M3	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	UG/M3	0.66		4.9		4.1
Acetone	UG/M3	37 J	67 J	16	44 J	12
Benzene	UG/M3	0.89	0.96	0.93	0.89	0.93
Bromodichloromethane	UG/M3					
Bromoform	UG/M3					
Carbon disulfide	UG/M3	9.7	9.5	0.93	7.8	
Carbon tetrachloride	UG/M3			0.31		
Chlorobenzene	UG/M3					
Chloroethane	UG/M3					
Chloroform	UG/M3	1.1	1.7	1.0	41	25
Chloromethane	UG/M3				0.91	
Cyclohexane	UG/M3	0.41	0.41			
Dibromochloromethane	UG/M3					
Dichlorodifluoromethane	UG/M3	5.8 J	5.8 J	2.8	4.3 J	
Ethanol	UG/M3	NA	NA	NA	NA	NA
Ethylbenzene	UG/M3	7.3	7.5	1.5	4.3	1.9
Heptane	UG/M3	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)	UG/M3					
Methyl ethyl ketone (2-Butanone)	UG/M3	11	15	4.0	5.7	4.0

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-006	SG-006	SG-006	SG-007	SG-007
Sample ID		061507-FD-01	SG-06	SG-06	SG-07	SG-07
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		06/15/07	06/15/07	12/06/07	06/14/07	12/06/07
Parameter	**Units**	Field Duplicate (1-1)				
Volatile Organic Compounds						
Methyl tert-butyl ether	UG/M3					
Methylcyclohexane	UG/M3			1.9		0.68
Methylene chloride	UG/M3	2.8				
n-Hexane	UG/M3	NA	NA	NA	NA	NA
n-Propylbenzene	UG/M3	NA	NA	NA	NA	NA
Styrene	UG/M3	5.3	5.7		13	
Tetrachloroethene	UG/M3	190	160	12	460	90
Toluene	UG/M3	17	18	11	6.2	15
Trichloroethene	UG/M3	0.86			740	430 D
Trichlorofluoromethane	UG/M3	5.2 J	5.2 J	1.5	5.1 J	
Vinyl chloride	UG/M3					
Xylene (total)	UG/M3	33	36	6.6	10	8.4
Total Volatile Organic Compounds	UG/M3	334.12	335.47	67.32	1,490.3	737.51

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-007	SG-008	SG-008	SG-008	SG-009
Sample ID		SG-07	SG-08	SG-08	SG-08	SG-09
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		02/23/11	06/14/07	12/06/07	02/23/11	06/14/07
Parameter	**Units**					
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3	32	37	13	3.6	3.1
1,1,2,2-Tetrachloroethane	UG/M3					
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3		1.1	0.54		1.2
1,1,2-Trichloroethane	UG/M3					
1,1-Dichloroethane	UG/M3		1.1	0.45		
1,1-Dichloroethene	UG/M3					0.71
1,2,4-Trimethylbenzene	UG/M3		NA	NA	0.91	NA
1,2-Dibromo-3-chloropropane	UG/M3	NA			NA	
1,2-Dibromoethane (Ethylene dibromide)	UG/M3					
1,2-Dichlorobenzene	UG/M3					
1,2-Dichloroethane	UG/M3					
1,2-Dichloroethene (cis)	UG/M3		0.56	0.40		
1,2-Dichloroethene (trans)	UG/M3					
1,2-Dichloropropane	UG/M3					
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3		NA	NA		NA
1,3-Butadiene	UG/M3		NA	NA		NA
1,3-Dichlorobenzene	UG/M3			0.30		
1,3-Dichloropropene (cis)	UG/M3					
1,3-Dichloropropene (trans)	UG/M3					
1,4-Dichlorobenzene	UG/M3					
1,4-Dioxane	UG/M3		NA	NA		NA
2,2,4-Trimethylpentane	UG/M3		NA	NA		NA

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-007	SG-008	SG-008	SG-008	SG-009
Sample ID		SG-07	SG-08	SG-08	SG-08	SG-09
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		02/23/11	06/14/07	12/06/07	02/23/11	06/14/07
Parameter	**Units**					
Volatile Organic Compounds						
2-Hexanone	UG/M3					
Isopropyl alcohol	UG/M3		NA	NA		NA
4-Ethyltoluene	UG/M3		NA	NA	0.90	NA
4-Methyl-2-pentanone	UG/M3			4.2		
Acetone	UG/M3	3.9	230 J	22	10	12 J
Benzene	UG/M3		0.38	1.1	2.6	
Bromodichloromethane	UG/M3					0.80
Bromoform	UG/M3					
Carbon disulfide	UG/M3		7.1	1.2		3.0
Carbon tetrachloride	UG/M3		12	3.8	1.3	4.2
Chlorobenzene	UG/M3					
Chloroethane	UG/M3					
Chloroform	UG/M3	10	8.3	5.5	1.5	530
Chloromethane	UG/M3		0.37			0.33
Cyclohexane	UG/M3					
Dibromochloromethane	UG/M3					
Dichlorodifluoromethane	UG/M3	2.3	4.0 J	2.5	2.3	5.0 J
Ethanol	UG/M3	15 J	NA	NA	24 J	NA
Ethylbenzene	UG/M3		6.2	1.5	0.97	3.6
Heptane	UG/M3		NA	NA	0.84	NA
Isopropylbenzene (Cumene)	UG/M3					
Methyl ethyl ketone (2-Butanone)	UG/M3		25	4.6	2.8	

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-007	SG-008	SG-008	SG-008	SG-009
Sample ID		SG-07	SG-08	SG-08	SG-08	SG-09
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		02/23/11	06/14/07	12/06/07	02/23/11	06/14/07
Parameter	**Units**					
Volatile Organic Compounds						
Methyl tert-butyl ether	UG/M3					
Methylcyclohexane	UG/M3	NA		1.7	NA	
Methylene chloride	UG/M3					
n-Hexane	UG/M3		NA	NA		NA
n-Propylbenzene	UG/M3		NA	NA		NA
Styrene	UG/M3		13			8.1
Tetrachloroethene	UG/M3	74	2,400	150	290	260
Toluene	UG/M3	1.2	5.4	17	4.8	4.7
Trichloroethene	UG/M3	90	250	74	41	2.7
Trichlorofluoromethane	UG/M3	1.2	4.6 J	1.3	1.1	5.8 J
Vinyl chloride	UG/M3					
Xylene (total)	UG/M3	0.69	23	6.1	3.9	14
Total Volatile Organic Compounds	UG/M3	230.29	3,029.11	311.19	392.52	859.24

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-009	SG-009	SG-010	SG-010	SG-011
Sample ID		120507-FD-02	SG-09	SG-10	SG-10	SG-11
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/05/07	12/05/07	06/14/07	12/05/07	06/14/07
Parameter	**Units**	Field Duplicate (1-1)				
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3	0.33	0.33	2.2	0.71	10
1,1,2,2-Tetrachloroethane	UG/M3					
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3	0.69	0.69	0.92	0.61	0.92
1,1,2-Trichloroethane	UG/M3					
1,1-Dichloroethane	UG/M3					
1,1-Dichloroethene	UG/M3					
1,2,4-Trimethylbenzene	UG/M3	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	UG/M3					
1,2-Dibromoethane (Ethylene dibromide)	UG/M3					
1,2-Dichlorobenzene	UG/M3					
1,2-Dichloroethane	UG/M3					
1,2-Dichloroethene (cis)	UG/M3					
1,2-Dichloroethene (trans)	UG/M3					
1,2-Dichloropropane	UG/M3					
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	NA	NA	NA	NA	NA
1,3-Butadiene	UG/M3	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	UG/M3				0.42	
1,3-Dichloropropene (cis)	UG/M3					
1,3-Dichloropropene (trans)	UG/M3					
1,4-Dichlorobenzene	UG/M3					
1,4-Dioxane	UG/M3	NA	NA	NA	NA	NA
2,2,4-Trimethylpentane	UG/M3	NA	NA	NA	NA	NA

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

[MATRIX] = 'GS' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057* LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-009	SG-009	SG-010	SG-010	SG-011
Sample ID		120507-FD-02	SG-09	SG-10	SG-10	SG-11
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/05/07	12/05/07	06/14/07	12/05/07	06/14/07
Parameter	**Units**	Field Duplicate (1-1)				
Volatile Organic Compounds						
2-Hexanone	UG/M3					
Isopropyl alcohol	UG/M3	NA	NA	NA	NA	NA
4-Ethyltoluene	UG/M3	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	UG/M3	5.3	6.0		5.0	
Acetone	UG/M3	33 J	36 J	51 J	25 J	60 J
Benzene	UG/M3	0.80	0.80		0.70	
Bromodichloromethane	UG/M3	2.7	2.7			
Bromoform	UG/M3					
Carbon disulfide	UG/M3			2.0		2.6
Carbon tetrachloride	UG/M3	1.8	1.8			
Chlorobenzene	UG/M3					
Chloroethane	UG/M3					
Chloroform	UG/M3	530 D	530 D	8.1	0.92	130
Chloromethane	UG/M3			0.29		
Cyclohexane	UG/M3				0.34	0.41
Dibromochloromethane	UG/M3					
Dichlorodifluoromethane	UG/M3	2.9	2.9	4.2 J	2.8	4.1 J
Ethanol	UG/M3	NA	NA	NA	NA	NA
Ethylbenzene	UG/M3	0.95	1.0	1.6	1.0	3.0
Heptane	UG/M3	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)	UG/M3					
Methyl ethyl ketone (2-Butanone)	UG/M3	6.2	6.7	13	5.3	9.8

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-009	SG-009	SG-010	SG-010	SG-011
Sample ID		120507-FD-02	SG-09	SG-10	SG-10	SG-11
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/05/07	12/05/07	06/14/07	12/05/07	06/14/07
Parameter	**Units**	Field Duplicate (1-1)				
Volatile Organic Compounds						
Methyl tert-butyl ether	UG/M3					
Methylcyclohexane	UG/M3	2.1	1.9		2.4	
Methylene chloride	UG/M3	1.3	1.2			
n-Hexane	UG/M3	NA	NA	NA	NA	NA
n-Propylbenzene	UG/M3	NA	NA	NA	NA	NA
Styrene	UG/M3			2.1		3.7
Tetrachloroethene	UG/M3	6.1	6.8	260	21	14
Toluene	UG/M3	35	39	1.6	45	4.2
Trichloroethene	UG/M3	1.7	1.7		0.97	1.2
Trichlorofluoromethane	UG/M3	1.2 J	1.1 J	4.6 J	1.0 J	4.0 J
Vinyl chloride	UG/M3					
Xylene (total)	UG/M3	4.8	5.1	7.2	5.4	13
Total Volatile Organic Compounds	UG/M3	636.87	645.72	358.81	118.57	260.93

Flags assigned during chemistry validation are shown.

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UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

[MATRIX] = 'GS' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057* LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-011	SG-014	SG-014	SG-014	SG-024
Sample ID		SG-11	SG-14	SG-14	SG-14	SG-24
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/05/07	06/15/07	12/06/07	02/23/11	12/04/07
Parameter	Units					
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3	29	1.2		1.4	14
1,1,2,2-Tetrachloroethane	UG/M3					
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3	0.77	0.92	0.46		0.54
1,1,2-Trichloroethane	UG/M3					
1,1-Dichloroethane	UG/M3					0.73
1,1-Dichloroethene	UG/M3					
1,2,4-Trimethylbenzene	UG/M3	NA	NA	NA		NA
1,2-Dibromo-3-chloropropane	UG/M3				NA	
1,2-Dibromoethane (Ethylene dibromide)	UG/M3					
1,2-Dichlorobenzene	UG/M3					
1,2-Dichloroethane	UG/M3					
1,2-Dichloroethene (cis)	UG/M3					0.67
1,2-Dichloroethene (trans)	UG/M3					
1,2-Dichloropropane	UG/M3					
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	NA	NA	NA		NA
1,3-Butadiene	UG/M3	NA	NA	NA		NA
1,3-Dichlorobenzene	UG/M3					
1,3-Dichloropropene (cis)	UG/M3					
1,3-Dichloropropene (trans)	UG/M3					
1,4-Dichlorobenzene	UG/M3					
1,4-Dioxane	UG/M3	NA	NA	NA		NA
2,2,4-Trimethylpentane	UG/M3	NA	NA	NA		NA

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-011	SG-014	SG-014	SG-014	SG-024
Sample ID		SG-11	SG-14	SG-14	SG-14	SG-24
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/05/07	06/15/07	12/06/07	02/23/11	12/04/07
Parameter	**Units**					
Volatile Organic Compounds						
2-Hexanone	UG/M3					
Isopropyl alcohol	UG/M3	NA	NA	NA		NA
4-Ethyltoluene	UG/M3	NA	NA	NA		NA
4-Methyl-2-pentanone	UG/M3	4.0				0.82
Acetone	UG/M3	22 J	30 J	6.1	9.7	36
Benzene	UG/M3	0.61		0.64		7.5
Bromodichloromethane	UG/M3		0.80			
Bromoform	UG/M3					
Carbon disulfide	UG/M3		4.5			58
Carbon tetrachloride	UG/M3		1.1	0.50		0.44
Chlorobenzene	UG/M3					
Chloroethane	UG/M3					
Chloroform	UG/M3	120	17	0.29	21	6.1
Chloromethane	UG/M3		0.45	0.97		0.25
Cyclohexane	UG/M3	0.28				
Dibromochloromethane	UG/M3					
Dichlorodifluoromethane	UG/M3	3.3	4.1 J	2.5	2.6 J	2.7
Ethanol	UG/M3	NA	NA	NA	6.9	NA
Ethylbenzene	UG/M3	1.1	2.3			0.95
Heptane	UG/M3	NA	NA	NA		NA
Isopropylbenzene (Cumene)	UG/M3					
Methyl ethyl ketone (2-Butanone)	UG/M3	4.2				4.7

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-011	SG-014	SG-014	SG-014	SG-024
Sample ID		SG-11	SG-14	SG-14	SG-14	SG-24
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/05/07	06/15/07	12/06/07	02/23/11	12/04/07
Parameter	**Units**					
Volatile Organic Compounds						
Methyl tert-butyl ether	UG/M3					0.43
Methylcyclohexane	UG/M3	3.1			NA	2.5
Methylene chloride	UG/M3			13		
n-Hexane	UG/M3	NA	NA	NA		NA
n-Propylbenzene	UG/M3	NA	NA	NA		NA
Styrene	UG/M3		10			
Tetrachloroethene	UG/M3	4.1	190		34	2.1
Toluene	UG/M3	27	1.4	1.1	2.1	22
Trichloroethene	UG/M3	0.86			22	0.86
Trichlorofluoromethane	UG/M3	1.3 J	2.2 J	2.6	1.1	1.4
Vinyl chloride	UG/M3					
Xylene (total)	UG/M3	5.6	5.2	0.56	1.6	3.9
Total Volatile Organic Compounds	UG/M3	227.22	271.17	28.72	102.4	166.59

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-025	SG-027	SG-030	SG-031	SG-032
Sample ID		SG-25	SG-27	SG-30	SG-31	SG-32
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/04/07	12/04/07	12/05/07	12/05/07	12/05/07
Parameter	**Units**					
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3		16	0.76	2.7	2.1
1,1,2,2-Tetrachloroethane	UG/M3					
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3	0.54	6.8	0.77	0.77	1.1
1,1,2-Trichloroethane	UG/M3					
1,1-Dichloroethane	UG/M3		0.61	4.7	13	
1,1-Dichloroethene	UG/M3					
1,2,4-Trimethylbenzene	UG/M3	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	UG/M3					
1,2-Dibromoethane (Ethylene dibromide)	UG/M3					
1,2-Dichlorobenzene	UG/M3					
1,2-Dichloroethane	UG/M3		0.53			
1,2-Dichloroethene (cis)	UG/M3		61			
1,2-Dichloroethene (trans)	UG/M3		5.0			
1,2-Dichloropropane	UG/M3				1.0	
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	NA	NA	NA	NA	NA
1,3-Butadiene	UG/M3	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	UG/M3		0.30			
1,3-Dichloropropene (cis)	UG/M3					
1,3-Dichloropropene (trans)	UG/M3					
1,4-Dichlorobenzene	UG/M3					
1,4-Dioxane	UG/M3	NA	NA	NA	NA	NA
2,2,4-Trimethylpentane	UG/M3	NA	NA	NA	NA	NA

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-025	SG-027	SG-030	SG-031	SG-032
Sample ID		SG-25	SG-27	SG-30	SG-31	SG-32
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/04/07	12/04/07	12/05/07	12/05/07	12/05/07
Parameter	**Units**					
Volatile Organic Compounds						
2-Hexanone	UG/M3					
Isopropyl alcohol	UG/M3	NA	NA	NA	NA	NA
4-Ethyltoluene	UG/M3	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	UG/M3	0.70	4.0	4.3	5.6	6.8
Acetone	UG/M3	9.6	62 J	67 J		47 J
Benzene	UG/M3	0.80	17	19	1,200 D	3.1
Bromodichloromethane	UG/M3					
Bromoform	UG/M3					
Carbon disulfide	UG/M3		96	180	290 D	
Carbon tetrachloride	UG/M3	0.50	0.63	0.44	0.50	0.75
Chlorobenzene	UG/M3					
Chloroethane	UG/M3			0.32		
Chloroform	UG/M3		13	4.1	15	
Chloromethane	UG/M3	1.2	0.43	26	15	
Cyclohexane	UG/M3		2.1	14	17	
Dibromochloromethane	UG/M3					
Dichlorodifluoromethane	UG/M3	2.7	2.6	3.1	3.5	
Ethanol	UG/M3	NA	NA	NA	NA	NA
Ethylbenzene	UG/M3	0.52	0.95	2.3	1.8	1.6
Heptane	UG/M3	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)	UG/M3					
Methyl ethyl ketone (2-Butanone)	UG/M3	1.9	7.5	6.7	9.5	1.8

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

[MATRIX] = 'GS' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057* LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-025	SG-027	SG-030	SG-031	SG-032
Sample ID		SG-25	SG-27	SG-30	SG-31	SG-32
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/04/07	12/04/07	12/05/07	12/05/07	12/05/07
Parameter	**Units**					
Volatile Organic Compounds						
Methyl tert-butyl ether	UG/M3			27		
Methylcyclohexane	UG/M3		6.1	12	10	8.1
Methylene chloride	UG/M3		17	1.3	3.2	
n-Hexane	UG/M3	NA	NA	NA	NA	NA
n-Propylbenzene	UG/M3	NA	NA	NA	NA	NA
Styrene	UG/M3					
Tetrachloroethene	UG/M3	1.9	230	10	3.7	16
Toluene	UG/M3	7.9	120	130	120 D	140
Trichloroethene	UG/M3	0.91	240 D	0.54	0.43	1.9
Trichlorofluoromethane	UG/M3	1.3	2.1 J	0.96 J	0.96 J	1.1 J
Vinyl chloride	UG/M3					
Xylene (total)	UG/M3	2.3	4.3	9.3	8.0	8.4
Total Volatile Organic Compounds	UG/M3	32.77	915.95	524.59	1,721.66	239.75

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-033	SG-034	SG-050	SG-050	SG-051
Sample ID		SG-33	SG-34	SG-50	SG-50	SG-51
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/05/07	12/05/07	05/21/08	02/23/11	05/21/08
Parameter	**Units**					
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3		0.98	0.75		
1,1,2,2-Tetrachloroethane	UG/M3					
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3	0.69	0.61			
1,1,2-Trichloroethane	UG/M3					
1,1-Dichloroethane	UG/M3					
1,1-Dichloroethene	UG/M3					
1,2,4-Trimethylbenzene	UG/M3	NA	NA	NA		NA
1,2-Dibromo-3-chloropropane	UG/M3				NA	
1,2-Dibromoethane (Ethylene dibromide)	UG/M3					
1,2-Dichlorobenzene	UG/M3					
1,2-Dichloroethane	UG/M3					
1,2-Dichloroethene (cis)	UG/M3			0.68		2.4
1,2-Dichloroethene (trans)	UG/M3					
1,2-Dichloropropane	UG/M3					
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	NA	NA	NA		NA
1,3-Butadiene	UG/M3	NA	NA	NA		NA
1,3-Dichlorobenzene	UG/M3			0.88		0.93
1,3-Dichloropropene (cis)	UG/M3					
1,3-Dichloropropene (trans)	UG/M3					
1,4-Dichlorobenzene	UG/M3					
1,4-Dioxane	UG/M3	NA	NA	NA		NA
2,2,4-Trimethylpentane	UG/M3	NA	NA	NA		NA

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-033	SG-034	SG-050	SG-050	SG-051
Sample ID		SG-33	SG-34	SG-50	SG-50	SG-51
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/05/07	12/05/07	05/21/08	02/23/11	05/21/08
Parameter	**Units**					
Volatile Organic Compounds						
2-Hexanone	UG/M3					
Isopropyl alcohol	UG/M3	NA	NA	NA	2.4	NA
4-Ethyltoluene	UG/M3	NA	NA	NA		NA
4-Methyl-2-pentanone	UG/M3	2.3	4.7	3.5		
Acetone	UG/M3	25 J	23 J	150 J	6.8	140 J
Benzene	UG/M3	1.1	0.57	5.4		36
Bromodichloromethane	UG/M3	2.1	0.67			
Bromoform	UG/M3					
Carbon disulfide	UG/M3			5.4		13
Carbon tetrachloride	UG/M3	0.63	0.38			1.6
Chlorobenzene	UG/M3					
Chloroethane	UG/M3					1.3
Chloroform	UG/M3	60	24	0.87		6.2
Chloromethane	UG/M3	0.62				
Cyclohexane	UG/M3			3.1		270
Dibromochloromethane	UG/M3					
Dichlorodifluoromethane	UG/M3	2.8	3.0	2.0	2.1 J	
Ethanol	UG/M3	NA	NA	NA	15	NA
Ethylbenzene	UG/M3	1.0	1.4	1.8		2.3
Heptane	UG/M3	NA	NA	NA	0.61	NA
Isopropylbenzene (Cumene)	UG/M3					
Methyl ethyl ketone (2-Butanone)	UG/M3	4.1	3.9	56	3.3	53

Flags assigned during chemistry validation are shown.

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UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-033	SG-034	SG-050	SG-050	SG-051
Sample ID		SG-33	SG-34	SG-50	SG-50	SG-51
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		12/05/07	12/05/07	05/21/08	02/23/11	05/21/08
Parameter	**Units**					
Volatile Organic Compounds						
Methyl tert-butyl ether	UG/M3					
Methylcyclohexane	UG/M3	2.3	1.4	7.4	NA	210 D
Methylene chloride	UG/M3		1.4			12
n-Hexane	UG/M3	NA	NA	NA		NA
n-Propylbenzene	UG/M3	NA	NA	NA		NA
Styrene	UG/M3					
Tetrachloroethene	UG/M3	1.2	8.0	120	29	200
Toluene	UG/M3	47	29	21	4.2	23
Trichloroethene	UG/M3	1.1	1.2	2.6		2.8
Trichlorofluoromethane	UG/M3	0.96 J	6.6 J	2.3	1.5	0.70
Vinyl chloride	UG/M3					5.5
Xylene (total)	UG/M3	6.0	6.1	8.2	1.4	11
Total Volatile Organic Compounds	UG/M3	158.9	116.91	391.88	66.31	991.73

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UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-051	SG-052	SG-052	SG-065	SG-065
Sample ID		SG-51	052108-FD2	SG-52	02222011-FD-1	SG-65
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		02/23/11	05/21/08	05/21/08	02/22/11	02/22/11
Parameter	Units		Field Duplicate (1-1)		Field Duplicate (1-1)	
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3					
1,1,2,2-Tetrachloroethane	UG/M3					
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3					
1,1,2-Trichloroethane	UG/M3					
1,1-Dichloroethane	UG/M3		0.70	0.67		
1,1-Dichloroethene	UG/M3					
1,2,4-Trimethylbenzene	UG/M3		NA	NA		
1,2-Dibromo-3-chloropropane	UG/M3	NA			NA	NA
1,2-Dibromoethane (Ethylene dibromide)	UG/M3					
1,2-Dichlorobenzene	UG/M3					
1,2-Dichloroethane	UG/M3					
1,2-Dichloroethene (cis)	UG/M3		6.4	6.4		
1,2-Dichloroethene (trans)	UG/M3		1.1	1.0		
1,2-Dichloropropane	UG/M3					
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3		NA	NA		
1,3-Butadiene	UG/M3		NA	NA		
1,3-Dichlorobenzene	UG/M3					
1,3-Dichloropropene (cis)	UG/M3					
1,3-Dichloropropene (trans)	UG/M3					
1,4-Dichlorobenzene	UG/M3					
1,4-Dioxane	UG/M3		NA	NA		
2,2,4-Trimethylpentane	UG/M3		NA	NA		

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-051	SG-052	SG-052	SG-065	SG-065
Sample ID		SG-51	052108-FD2	SG-52	02222011-FD-1	SG-65
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		02/23/11	05/21/08	05/21/08	02/22/11	02/22/11
Parameter	Units		Field Duplicate (1-1)		Field Duplicate (1-1)	
Volatile Organic Compounds						
2-Hexanone	UG/M3		1.2	0.98		
Isopropyl alcohol	UG/M3		NA	NA		
4-Ethyltoluene	UG/M3		NA	NA		
4-Methyl-2-pentanone	UG/M3		3.6	3.9		
Acetone	UG/M3				36	34
Benzene	UG/M3	2.7	4.0	3.9		
Bromodichloromethane	UG/M3		4.9	5.0		
Bromoform	UG/M3					
Carbon disulfide	UG/M3		0.69	0.56		
Carbon tetrachloride	UG/M3		1.6	1.6		
Chlorobenzene	UG/M3					
Chloroethane	UG/M3		9.7	9.4		
Chloroform	UG/M3		190	190	10	9.7
Chloromethane	UG/M3		0.51	0.46		
Cyclohexane	UG/M3	31	13	13		
Dibromochloromethane	UG/M3					
Dichlorodifluoromethane	UG/M3		2.0	1.8		
Ethanol	UG/M3		NA	NA		
Ethylbenzene	UG/M3		2.2	2.1		
Heptane	UG/M3	5.8	NA	NA		
Isopropylbenzene (Cumene)	UG/M3					
Methyl ethyl ketone (2-Butanone)	UG/M3		33	35		

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

[MATRIX] = 'GS' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057* LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-051	SG-052	SG-052	SG-065	SG-065
Sample ID		SG-51	052108-FD2	SG-52	02222011-FD-1	SG-65
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		02/23/11	05/21/08	05/21/08	02/22/11	02/22/11
Parameter	Units		Field Duplicate (1-1)		Field Duplicate (1-1)	
Volatile Organic Compounds						
Methyl tert-butyl ether	UG/M3					
Methylcyclohexane	UG/M3	NA	1.6	1.6	NA	NA
Methylene chloride	UG/M3					
n-Hexane	UG/M3	47	NA	NA		
n-Propylbenzene	UG/M3		NA	NA		
Styrene	UG/M3					
Tetrachloroethene	UG/M3	58	72	85	320	330
Toluene	UG/M3		23	21	7.1	7.5
Trichloroethene	UG/M3		20	21	1,500	1,400
Trichlorofluoromethane	UG/M3		2.2	2.2		
Vinyl chloride	UG/M3	2.2	3.5	3.3		
Xylene (total)	UG/M3		11	9.8	4.4	
Total Volatile Organic Compounds	UG/M3	146.7	407.9	419.67	1,877.5	1,781.2

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-066	SG-067	SG-069	SG-069	SG-070
Sample ID		SG-66	SG-67	02232011-FD-1	SG-69	SG-70
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		02/22/11	02/22/11	02/23/11	02/23/11	02/22/11
Parameter	Units			Field Duplicate (1-1)		
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3					
1,1,2,2-Tetrachloroethane	UG/M3					
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3					
1,1,2-Trichloroethane	UG/M3					
1,1-Dichloroethane	UG/M3					
1,1-Dichloroethene	UG/M3					
1,2,4-Trimethylbenzene	UG/M3	3.4	100			13
1,2-Dibromo-3-chloropropane	UG/M3	NA	NA	NA	NA	NA
1,2-Dibromoethane (Ethylene dibromide)	UG/M3					
1,2-Dichlorobenzene	UG/M3					
1,2-Dichloroethane	UG/M3					
1,2-Dichloroethene (cis)	UG/M3					
1,2-Dichloroethene (trans)	UG/M3					
1,2-Dichloropropane	UG/M3					
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3		51			6.8
1,3-Butadiene	UG/M3	2.7				
1,3-Dichlorobenzene	UG/M3					
1,3-Dichloropropene (cis)	UG/M3					
1,3-Dichloropropene (trans)	UG/M3					
1,4-Dichlorobenzene	UG/M3					
1,4-Dioxane	UG/M3					26
2,2,4-Trimethylpentane	UG/M3		120			

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-066	SG-067	SG-069	SG-069	SG-070
Sample ID		SG-66	SG-67	02232011-FD-1	SG-69	SG-70
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		02/22/11	02/22/11	02/23/11	02/23/11	02/22/11
Parameter	Units			Field Duplicate (1-1)		
Volatile Organic Compounds						
2-Hexanone	UG/M3					
Isopropyl alcohol	UG/M3					
4-Ethyltoluene	UG/M3	8.2	150			14
4-Methyl-2-pentanone	UG/M3					
Acetone	UG/M3	140		100	99	13
Benzene	UG/M3	51	440			29
Bromodichloromethane	UG/M3					
Bromoform	UG/M3					
Carbon disulfide	UG/M3	30				
Carbon tetrachloride	UG/M3					
Chlorobenzene	UG/M3					
Chloroethane	UG/M3					
Chloroform	UG/M3	7.5				
Chloromethane	UG/M3					
Cyclohexane	UG/M3	2.4				
Dibromochloromethane	UG/M3					
Dichlorodifluoromethane	UG/M3					
Ethanol	UG/M3	13 J				12 J
Ethylbenzene	UG/M3	46	320			26
Heptane	UG/M3	42	290			12
Isopropylbenzene (Cumene)	UG/M3	3.7				
Methyl ethyl ketone (2-Butanone)	UG/M3					

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-066	SG-067	SG-069	SG-069	SG-070
Sample ID		SG-66	SG-67	02232011-FD-1	SG-69	SG-70
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		02/22/11	02/22/11	02/23/11	02/23/11	02/22/11
Parameter	Units			Field Duplicate (1-1)		
Volatile Organic Compounds						
Methyl tert-butyl ether	UG/M3					
Methylcyclohexane	UG/M3	NA	NA	NA	NA	NA
Methylene chloride	UG/M3					
n-Hexane	UG/M3	9.1	46			2.3
n-Propylbenzene	UG/M3	2.9				3.5
Styrene	UG/M3					
Tetrachloroethene	UG/M3	330	18,000	12,000	12,000	1,100
Toluene	UG/M3	430	3,500	23	24	220
Trichloroethene	UG/M3			200	190	5.8
Trichlorofluoromethane	UG/M3					
Vinyl chloride	UG/M3					
Xylene (total)	UG/M3	150	1,300			110
Total Volatile Organic Compounds	UG/M3	1,271.9	24,317	12,323	12,313	1,593.4

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-071	SG-072	SG-073	SG-074	SG-075
Sample ID		SG-71	SG-72	SG-73	SG-74	SG-75
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		02/22/11	02/23/11	02/22/11	02/22/11	02/23/11
Parameter	**Units**					
Volatile Organic Compounds						
1,1,1-Trichloroethane	UG/M3		44			44
1,1,2,2-Tetrachloroethane	UG/M3					
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3					
1,1,2-Trichloroethane	UG/M3					
1,1-Dichloroethane	UG/M3		5.3			1.4
1,1-Dichloroethene	UG/M3					
1,2,4-Trimethylbenzene	UG/M3				33	23
1,2-Dibromo-3-chloropropane	UG/M3	NA	NA	NA	NA	NA
1,2-Dibromoethane (Ethylene dibromide)	UG/M3					
1,2-Dichlorobenzene	UG/M3					
1,2-Dichloroethane	UG/M3					
1,2-Dichloroethene (cis)	UG/M3		88			1.3
1,2-Dichloroethene (trans)	UG/M3					
1,2-Dichloropropane	UG/M3					
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3				14	0.97
1,3-Butadiene	UG/M3					
1,3-Dichlorobenzene	UG/M3					
1,3-Dichloropropene (cis)	UG/M3					
1,3-Dichloropropene (trans)	UG/M3					
1,4-Dichlorobenzene	UG/M3					
1,4-Dioxane	UG/M3					
2,2,4-Trimethylpentane	UG/M3			67		

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-071	SG-072	SG-073	SG-074	SG-075
Sample ID		SG-71	SG-72	SG-73	SG-74	SG-75
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		02/22/11	02/23/11	02/22/11	02/22/11	02/23/11
Parameter	**Units**					
Volatile Organic Compounds						
2-Hexanone	UG/M3					
Isopropyl alcohol	UG/M3					
4-Ethyltoluene	UG/M3				33	3.1
4-Methyl-2-pentanone	UG/M3					
Acetone	UG/M3		48		52	45
Benzene	UG/M3			81	58	2.4
Bromodichloromethane	UG/M3					
Bromoform	UG/M3					
Carbon disulfide	UG/M3					4.1
Carbon tetrachloride	UG/M3					1.4
Chlorobenzene	UG/M3					
Chloroethane	UG/M3					
Chloroform	UG/M3					41
Chloromethane	UG/M3					
Cyclohexane	UG/M3					
Dibromochloromethane	UG/M3					
Dichlorodifluoromethane	UG/M3					2.0
Ethanol	UG/M3		17		10 J	7.1 J
Ethylbenzene	UG/M3				55	4.0
Heptane	UG/M3			75	14	3.5
Isopropylbenzene (Cumene)	UG/M3				3.5	
Methyl ethyl ketone (2-Butanone)	UG/M3					

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-071	SG-072	SG-073	SG-074	SG-075
Sample ID		SG-71	SG-72	SG-73	SG-74	SG-75
Matrix		Soil Gas	Soil Gas	Soil Gas	Soil Gas	Soil Gas
Depth Interval (ft)		-	-	-	-	-
Date Sampled		02/22/11	02/23/11	02/22/11	02/22/11	02/23/11
Parameter	**Units**					
Volatile Organic Compounds						
Methyl tert-butyl ether	UG/M3					
Methylcyclohexane	UG/M3	NA	NA	NA	NA	NA
Methylene chloride	UG/M3					
n-Hexane	UG/M3				4.0	1.0
n-Propylbenzene	UG/M3				7.2	
Styrene	UG/M3					
Tetrachloroethene	UG/M3	8,200,000	92	24,000	1,200	160
Toluene	UG/M3		13	470	480	36
Trichloroethene	UG/M3		1,300			310
Trichlorofluoromethane	UG/M3					1.2
Vinyl chloride	UG/M3					
Xylene (total)	UG/M3		7.6	220	250	15
Total Volatile Organic Compounds	UG/M3	8,200,000	1,614.9	24,913	2,213.7	707.47

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-076	SG-077
Sample ID		SG-76	SG-77
Matrix		Soil Gas	Soil Gas
Depth Interval (ft)		-	-
Date Sampled		02/23/11	02/22/11
Parameter	**Units**		
Volatile Organic Compounds			
1,1,1-Trichloroethane	UG/M3	6.6	
1,1,2,2-Tetrachloroethane	UG/M3		
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3		
1,1,2-Trichloroethane	UG/M3		
1,1-Dichloroethane	UG/M3		
1,1-Dichloroethene	UG/M3		
1,2,4-Trimethylbenzene	UG/M3	3.5	
1,2-Dibromo-3-chloropropane	UG/M3	NA	NA
1,2-Dibromoethane (Ethylene dibromide)	UG/M3		
1,2-Dichlorobenzene	UG/M3		
1,2-Dichloroethane	UG/M3		
1,2-Dichloroethene (cis)	UG/M3		
1,2-Dichloroethene (trans)	UG/M3		
1,2-Dichloropropane	UG/M3		
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3		
1,3-Butadiene	UG/M3		
1,3-Dichlorobenzene	UG/M3		
1,3-Dichloropropene (cis)	UG/M3		
1,3-Dichloropropene (trans)	UG/M3		
1,4-Dichlorobenzene	UG/M3		
1,4-Dioxane	UG/M3		
2,2,4-Trimethylpentane	UG/M3		

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

[MATRIX] = 'GS' AND (LOCID Like "dec-002*" Or LOCID Like "dec-023*" Or LOCID Like "dec-024*" Or LOCID Like "dec-035*" Or LOCID Like "dec-038*" Or LOCID Like "dec-053*" Or LOCID Like "dec-057* LOCID Like "dec-059*" Or LOCID Like "dec-063*" OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' Or LOCID Like "Mw-014*"

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-076	SG-077
Sample ID		SG-76	SG-77
Matrix		Soil Gas	Soil Gas
Depth Interval (ft)		-	-
Date Sampled		02/23/11	02/22/11
Parameter	**Units**		
Volatile Organic Compounds			
2-Hexanone	UG/M3		
Isopropyl alcohol	UG/M3		
4-Ethyltoluene	UG/M3	1.8	
4-Methyl-2-pentanone	UG/M3		
Acetone	UG/M3	44	7.8
Benzene	UG/M3	2.2	1.0
Bromodichloromethane	UG/M3		
Bromoform	UG/M3		
Carbon disulfide	UG/M3		
Carbon tetrachloride	UG/M3		
Chlorobenzene	UG/M3		
Chloroethane	UG/M3		
Chloroform	UG/M3	33	
Chloromethane	UG/M3		0.98
Cyclohexane	UG/M3	1.2	
Dibromochloromethane	UG/M3		
Dichlorodifluoromethane	UG/M3	3.4 J	2.1
Ethanol	UG/M3	14	9.4 J
Ethylbenzene	UG/M3	2.1	
Heptane	UG/M3	3.0	0.82
Isopropylbenzene (Cumene)	UG/M3		
Methyl ethyl ketone (2-Butanone)	UG/M3	3.6	

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-11
SUMMARY OF HISTORICALLY DETECTED COMPOUNDS IN ALL SOIL GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Location ID		SG-076	SG-077
Sample ID		SG-76	SG-77
Matrix		Soil Gas	Soil Gas
Depth Interval (ft)		-	-
Date Sampled		02/23/11	02/22/11
Parameter	**Units**		
Volatile Organic Compounds			
Methyl tert-butyl ether	UG/M3		
Methylcyclohexane	UG/M3	NA	NA
Methylene chloride	UG/M3		4.8
n-Hexane	UG/M3	3.4	0.86
n-Propylbenzene	UG/M3		
Styrene	UG/M3		
Tetrachloroethene	UG/M3	180	110
Toluene	UG/M3	14	4.9
Trichloroethene	UG/M3	290	
Trichlorofluoromethane	UG/M3	1.4	1.4
Vinyl chloride	UG/M3		
Xylene (total)	UG/M3	10	1.4
Total Volatile Organic Compounds	UG/M3	617.2	145.46

Flags assigned during chemistry validation are shown.

Blank cell or ND - Not Detected. J - The reported concentration is an estimated value. D - Result reported from a secondary dilution analysis. NA - Not analyzed.
UG/M3 - Micrograms per cubic meter.

Only Detected Results Reported.

TABLE 4-12

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN ALL SOIL-GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Parameter	Units	No. of Samples	No. of Detections	Range of Detections			Location of Max Value
				Min	Max	Avg	
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/M3	66	46	0.330	1,100	38.03	SG-004
1,1,2,2-Tetrachloroethane	UG/M3	66	1	1.10	1.10	1.10	SG-005
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3	66	39	0.460	140.0	4.51	MP-008D
1,1,2-Trichloroethane	UG/M3	66	1	1.20	1.20	1.20	SG-005
1,1-Dichloroethane	UG/M3	66	13	0.240	13.00	2.89	SG-031
1,1-Dichloroethene	UG/M3	66	3	0.320	1.70	0.910	SG-005
1,2,4-Trimethylbenzene	UG/M3	66	8	0.740	100.0	22.19	SG-067
1,2-Dibromo-3-chloropropane	UG/M3	66	1	1.40	1.40	1.40	SG-005
1,2-Dibromoethane (Ethylene dibromide)	UG/M3	66	1	1.20	1.20	1.20	SG-005
1,2-Dichlorobenzene	UG/M3	66	1	1.60	1.60	1.60	SG-005
1,2-Dichloroethane	UG/M3	66	2	0.530	2.10	1.32	SG-005
1,2-Dichloroethene (cis)	UG/M3	66	14	0.280	88.00	12.04	SG-072
1,2-Dichloroethene (trans)	UG/M3	66	3	1.00	5.00	2.57	SG-027
1,2-Dichloropropane	UG/M3	66	2	1.00	1.20	1.10	SG-005
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	66	4	0.970	51.00	18.19	SG-067
1,3-Butadiene	UG/M3	66	1	2.70	2.70	2.70	SG-066
1,3-Dichlorobenzene	UG/M3	66	10	0.300	0.930	0.499	SG-051
1,3-Dichloropropene (cis)	UG/M3	66	1	1.30	1.30	1.30	SG-005
1,3-Dichloropropene (trans)	UG/M3	66	1	1.20	1.20	1.20	SG-005

Number of detections may be greater than the number of samples because field duplicates are not counted in the number of samples.

Only Detected Results Reported.

WHERE [MATRIX] = 'GS' AND ([LOCID] = 'MP-008D' OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' OR [LOCID] = 'SG-001' OR [LOCID] = 'SG-002' OR [LOCID] = 'SG-003' OR [LOCID] = 'SG-004' OR [LOCID] = 'SG-005' OR [LOCID] = 'SG-006' OR [LOCID] = 'SG-007' OR [LOCID] = 'SG-008' OR [LOCID] = 'SG-009'

TABLE 4-12

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN ALL SOIL-GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

Parameter	Units	No. of Samples	No. of Detections	Range of Detections			Location of Max Value
				Min	Max	Avg	
Volatile Organic Compounds							
1,4-Dichlorobenzene	UG/M3	66	4	0.300	1.80	0.795	SG-005
1,4-Dioxane	UG/M3	66	1	26.00	26.00	26.00	SG-070
2,2,4-Trimethylpentane	UG/M3	66	2	67.00	120.0	93.50	SG-067
2-Hexanone	UG/M3	66	4	0.980	3.70	2.02	MP-018D
Isopropyl alcohol	UG/M3	66	2	2.00	2.40	2.20	SG-050
4-Ethyltoluene	UG/M3	66	7	0.900	150.0	30.14	SG-067
4-Methyl-2-pentanone	UG/M3	66	27	0.700	9.90	4.63	MP-021
Acetone	UG/M3	66	55	3.90	230.0	42.19	SG-008
Benzene	UG/M3	66	52	0.220	1.80E+04	396.8	MP-008D
Bromodichloromethane	UG/M3	66	10	0.670	6.20	2.22	SG-002
Bromoform	UG/M3	66	1	1.20	1.20	1.20	SG-005
Carbon disulfide	UG/M3	66	34	0.220	440.0	35.12	MP-008D
Carbon tetrachloride	UG/M3	66	31	0.310	63.00	3.35	MP-008D
Chlorobenzene	UG/M3	66	2	0.280	1.30	0.790	SG-005
Chloroethane	UG/M3	66	4	0.320	9.40	4.33	SG-052
Chloroform	UG/M3	66	50	0.290	530.0	50.36	SG-009
Chloromethane	UG/M3	66	24	0.120	120.0	7.45	MP-008D
Cyclohexane	UG/M3	66	21	0.210	9.80E+04	5,827	MP-008D
Dibromochloromethane	UG/M3	66	2	0.510	1.40	0.955	SG-005

Number of detections may be greater than the number of samples because field duplicates are not counted in the number of samples.

Only Detected Results Reported.

WHERE [MATRIX] = 'GS' AND ([LOCID] = 'MP-008D' OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' OR [LOCID] = 'SG-001' OR [LOCID] = 'SG-002' OR [LOCID] = 'SG-003' OR [LOCID] = 'SG-004' OR [LOCID] = 'SG-005' OR [LOCID] = 'SG-006' OR [LOCID] = 'SG-007' OR [LOCID] = 'SG-008' OR [LOCID] = 'SG-009'

TABLE 4-12

STATISTICAL SUMMARY OF COMPOUNDS DETECTED IN ALL SOIL-GAS SAMPLES IN SPIC AND SPAN AREA
FORMER SPIC AND SPAN CLEANERS AND DYERS, INC. SITE

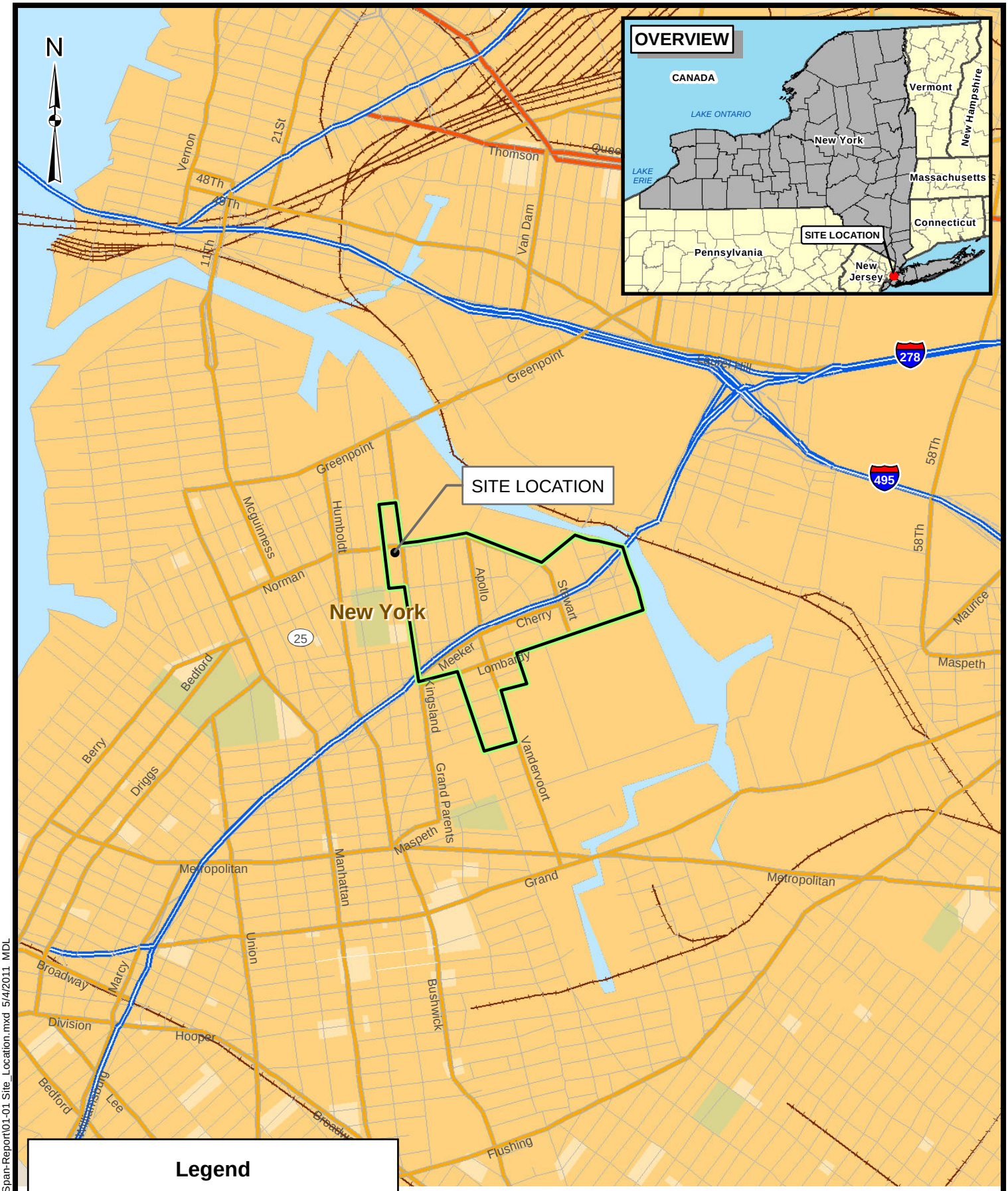
Parameter	Units	No. of Samples	No. of Detections	Range of Detections			Location of Max Value
				Min	Max	Avg	
Volatile Organic Compounds							
Dichlorodifluoromethane	UG/M3	66	48	1.80	370.0	11.28	MP-008D
Ethanol	UG/M3	66	12	6.90	24.00	13.28	SG-008
Ethylbenzene	UG/M3	66	53	0.520	320.0	14.84	SG-067
Heptane	UG/M3	66	11	0.610	290.0	40.69	SG-067
Isopropylbenzene (Cumene)	UG/M3	66	3	1.60	3.70	2.93	SG-066
Methyl ethyl ketone (2-Butanone)	UG/M3	66	46	1.80	360.0	16.67	MP-008D
Methyl tert-butyl ether	UG/M3	66	4	0.430	27.00	7.39	SG-030
Methylcyclohexane	UG/M3	66	30	0.680	1.60E+05	5,744	MP-008D
Methylene chloride	UG/M3	66	16	1.20	4,700	298.7	MP-008D
n-Hexane	UG/M3	66	8	0.860	47.00	14.21	SG-051
n-Propylbenzene	UG/M3	66	3	2.90	7.20	4.53	SG-074
Styrene	UG/M3	66	17	0.940	110.0	11.28	MP-008D
Tetrachloroethene	UG/M3	66	63	1.20	8.20E+06	1.31E+05	SG-071
Toluene	UG/M3	66	63	0.870	3,500	105.7	SG-067
Trichloroethene	UG/M3	66	45	0.320	3.20E+04	843.3	SG-004
Trichlorofluoromethane	UG/M3	66	52	0.510	2,000	42.64	MP-008D
Vinyl chloride	UG/M3	66	3	2.20	5.50	3.67	SG-051
Xylene (total)	UG/M3	66	60	0.560	1,300	48.87	SG-067

Number of detections may be greater than the number of samples because field duplicates are not counted in the number of samples.

Only Detected Results Reported.

WHERE [MATRIX] = 'GS' AND ([LOCID] = 'MP-008D' OR [LOCID] = 'MP-018D' OR [LOCID] = 'MP-021' OR [LOCID] = 'MP-024' OR [LOCID] = 'MP-025' OR [LOCID] = 'MP-026' OR [LOCID] = 'SG-001' OR [LOCID] = 'SG-002' OR [LOCID] = 'SG-003' OR [LOCID] = 'SG-004' OR [LOCID] = 'SG-005' OR [LOCID] = 'SG-006' OR [LOCID] = 'SG-007' OR [LOCID] = 'SG-008' OR [LOCID] = 'SG-009'

FIGURES



Legend

Meeker Trackdown Project Boundary

SOURCE: ESRI Data and Maps

2,000 0 2,000 Feet

URS

FORMER SPIC & SPAN CLEANERS SITE
SITE LOCATION

FIGURE 1-1

J:\11174989.00000\DB\GIS\SpicSpan-Report\01-01 Site_Location.mxd 5/4/2011 MDL

FORMER SPIC & SPAN CLEANERS SITE
SITE PLAN AND POTENTIAL SOURCE AREAS

URS

FIGURE 1-2

J:\111174989.00000\DBIG\S\SpicSpan-Report\01-02 Site_Plan.mxd 5/4/2011 MDL

N

Newtown Creek

MONITOR ST

NORMAN AVE

BRIDGEWATER ST

HAUSMAN ST

MORGAN AVE

SUTTON ST

KINGSLAND AVE

NASSAU AVE

VARICK AVE

VAN DAM ST

MEEKER AVE

SG-027	12/07
VOCs:	
Tetrachloroethene	230
Trichloroethene	240

SG-050	5/08
VOCs:	
Tetrachloroethene	120
Trichloroethene	2.6

SG-025	12/07
VOCs:	
Tetrachloroethene	1.9
Trichloroethene	0.91

SG-051	5/08
VOCs:	
Tetrachloroethene	200
Trichloroethene	2.8

SG-005	6/07	12/07
VOCs:		
Tetrachloroethene	170	20
Trichloroethene	5.4	1.9

SG-024	12/07
VOCs:	
Tetrachloroethene	2.1
Trichloroethene	0.86

SG-004	6/07	12/07
VOCs:		
Tetrachloroethene	36	7.9
Trichloroethene	330	27

SG-052	5/08
VOCs:	
Tetrachloroethene	85
Trichloroethene	21

MP-018D	6/07	12/07
VOCs:		
Tetrachloroethene	510	34
Trichloroethene	130	17

SG-008	6/07	12/07
VOCs:		
Tetrachloroethene	2400	150
Trichloroethene	250	74

SG-006	6/07	12/07
VOCs:		
Tetrachloroethene	190	12
Trichloroethene	0.86	ND

SG-014	6/07	12/07
VOCs:		
Tetrachloroethene	190	ND
Trichloroethene	ND	ND

SG-007	6/07	12/07
VOCs:		
Tetrachloroethene	460	90
Trichloroethene	740	430

Legend

- ExxonMobil Soil Gas Implant
- NYSDEC Soil Gas Implant

NOTE: Units are in $\mu g/m^3$

SOURCE: Bing Maps Aerial (c) 2010 Microsoft Corporation

200 0 200 Feet

FORMER SPIC & SPAN CLEANERS SITE
PHASE I - V CONCENTRATIONS OF PCE AND TCE IN SOIL GAS

URS

FIGURE 1-3

J:\11174989.00000\DB\GIS\SpicSpan-Report\01-03 SG_PCE_and_TCE.mxd 5/4/2011 MDL

DEC-057	CRIT	7/09
VOCs:		
Tetrachloroethene	5	44
Trichloroethene	5	2.7

DEC-056	CRIT	7/09
VOCs:		
Tetrachloroethene	5	ND
Trichloroethene	5	ND

MW-081	CRIT	7/08	7/09
VOCs:			
Tetrachloroethene	5	2	ND
Trichloroethene	5	ND	ND

DEC-055D	CRIT	7/09
VOCs:		
Tetrachloroethene	5	8.5
Trichloroethene	5	1.1

DEC-055	CRIT	7/09
VOCs:		
Tetrachloroethene	5	1.4
Trichloroethene	5	ND

DEC-023D	CRIT	7/09
VOCs:		
Tetrachloroethene	5	1.4
Trichloroethene	5	ND

DEC-035D	CRIT	7/09
VOCs:		
Tetrachloroethene	5	ND
Trichloroethene	5	ND

DEC-035	CRIT	7/08	7/09
VOCs:			
Tetrachloroethene	5	ND	ND
Trichloroethene	5	ND	ND

DEC-023	CRIT	12/07	7/08	7/09
VOCs:				
Tetrachloroethene	5	ND	ND	ND
Trichloroethene	5	ND	ND	ND

DEC-024	CRIT	12/07	7/08	7/09
VOCs:				
Tetrachloroethene	5	39000	130	100
Trichloroethene	5	500	170	63

DEC-036	CRIT	7/08	7/09
VOCs:			
Tetrachloroethene	5	5900	8200
Trichloroethene	5	2400	2500

DEC-025	CRIT	12/07	7/08	7/09
VOCs:				
Tetrachloroethene	5	67	8.3	18
Trichloroethene	5	ND	ND	4.7

DEC-038	CRIT	7/08
VOCs:		
Tetrachloroethene	5	ND
Trichloroethene	5	ND

DEC-053D	CRIT	7/09
VOCs:		
Tetrachloroethene	5	55
Trichloroethene	5	2

DEC-053	CRIT	7/09
VOCs:		
Tetrachloroethene	5	ND
Trichloroethene	5	ND

MW-087	CRIT	7/09
VOCs:		
Tetrachloroethene	5	ND
Trichloroethene	5	ND

MW-085	CRIT	7/08	7/09
VOCs:			
Tetrachloroethene	5	ND	ND
Trichloroethene	5	1.6	ND

MW-083	CRIT	7/08	7/09
VOCs:			
Tetrachloroethene	5	ND	ND
Trichloroethene	5	ND	ND

DEC-034	CRIT	7/08
VOCs:		
Tetrachloroethene	5	35
Trichloroethene	5	8.5

MW-095	CRIT	6/07	12/07	7/08
VOCs:				
Tetrachloroethene	5	ND	ND	ND
Trichloroethene	5	ND	ND	ND

DEC-037	CRIT	7/08
VOCs:		
Tetrachloroethene	5	ND
Trichloroethene	5	ND

MW-092	CRIT	6/07	12/07	7/08
VOCs:				
Tetrachloroethene	5	ND	3	1.2
Trichloroethene	5	69	150	64

DEC-001	CRIT	6/07	12/07	7/08
VOCs:				
Tetrachloroethene	5	10	3.1	3.3
Trichloroethene	5	110	56	52

DEC-003D	CRIT	7/08
VOCs:		
Tetrachloroethene	5	420
Trichloroethene	5	39

DEC-003	CRIT	6/07	12/07	7/08
VOCs:				
Tetrachloroethene	5	6.8	6.8	6.4
Trichloroethene	5	11	17	12

MW-014	CRIT	6/07	12/07
VOCs:			
Tetrachloroethene	5	ND	ND
Trichloroethene	5	ND	ND

DEC-002	CRIT	6/07	12/07
VOCs:			
Tetrachloroethene	5	1.2	ND
Trichloroethene	5	2.9	3.2

Newtown Creek

MONITOR ST

NORMAN AVE

KINGSLAND AVE

SUTTON ST

MORGAN AVE

HAUSMAN ST

NASSAU AVE

BRIDGEWATER ST

VARICK AVE

VAN DAM ST

MEEKER AVE

Legend

- ExxonMobil Monitoring Well Location
- NYSDEC Monitoring Well Location

NOTE: Units are in µg/L

SOURCE: Bing Maps Aerial (c) 2010 Microsoft Corporation

200 0 200 Feet

FORMER SPIC & SPAN CLEANERS SITE
PHASE I - V CONCENTRATIONS OF PCE AND TCE IN GROUNDWATER

URS

FIGURE 1-4

J:\111174989.00000\DBIG\S\SpicSpan-Report\01-04 GW_PCE_and_TCE.mxd 5/4/2011 MDL

N

Newtown Creek

MONITOR ST

NORMAN AVE

KINGSLAND AVE

HAUSMAN ST

MORGAN AVE

SUTTON ST

BRIDGEWATER ST

NASSAU AVE

VARICK AVE

VAN DAM ST

MEEKER AVE

APOL

DEC-057 (19'-20') | 6/09	
VOCs:	
Tetrachloroethene	0.02
Trichloroethene	ND

DEC-053 (8'-9') | 6/09	
VOCs:	
Tetrachloroethene	ND
Trichloroethene	ND

DEC-053 (14'-15') | 6/09	
VOCs:	
Tetrachloroethene	ND
Trichloroethene	ND

DEC-056 (34'-35') | 6/09	
VOCs:	
Tetrachloroethene	ND
Trichloroethene	ND

DEC-054 (14'-15') | 6/09	
VOCs:	
Tetrachloroethene	ND
Trichloroethene	ND

DEC-054 (18'-19') | 6/09	
VOCs:	
Tetrachloroethene	ND
Trichloroethene	ND

DEC-023 (19'-21') | 12/07	
VOCs:	
Tetrachloroethene	ND
Trichloroethene	ND

DEC-034 (14'-15') | 5/08	
VOCs:	
Tetrachloroethene	ND
Trichloroethene	ND

DEC-034 (14'-15') | 5/08	
VOCs:	
Tetrachloroethene	0.041
Trichloroethene	ND

DEC-037 (14'-15') | 5/08	
VOCs:	
Tetrachloroethene	ND
Trichloroethene	ND

DEC-035 (14'-15') | 5/08	
VOCs:	
Tetrachloroethene	ND
Trichloroethene	ND

DEC-036 (25'-26') | 5/08	
VOCs:	
Tetrachloroethene	0.13
Trichloroethene	0.0044

DEC-024DR (45'-46') | 6/09	
VOCs:	
Tetrachloroethene	1000
Trichloroethene	0.22

DEC-001 (13'-14') | 6/07	
VOCs:	
Tetrachloroethene	0.0017
Trichloroethene	0.017

DEC-024 (19'-21') | 12/07	
VOCs:	
Tetrachloroethene	0.0015
Trichloroethene	ND

DEC-024 (23'-25') | 12/07	
VOCs:	
Tetrachloroethene	ND
Trichloroethene	ND

DEC-003 (3'-5') | 6/07	
VOCs:	
Tetrachloroethene	ND
Trichloroethene	ND

DEC-003 (20'-21') | 6/07	
VOCs:	
Tetrachloroethene	ND
Trichloroethene	ND

DEC-025 (9'-10') | 12/07	
VOCs:	
Tetrachloroethene	0.0082
Trichloroethene	ND

DEC-025 (14'-15') | 12/07	
VOCs:	
Tetrachloroethene	0.096
Trichloroethene	ND

DEC-025 (28'-29') | 12/07	
VOCs:	
Tetrachloroethene	ND
Trichloroethene	ND

DEC-002 (14'-15') | 6/07	
VOCs:	
Tetrachloroethene	ND
Trichloroethene	ND

DEC-038 (19'-20') | 5/08	
VOCs:	
Tetrachloroethene	ND
Trichloroethene	ND

Legend

- NYSDEC Soil Sample

NOTE: Units are in mg/kg

SOURCE: Bing Maps Aerial (c) 2010 Microsoft Corporation

200 0 200 Feet

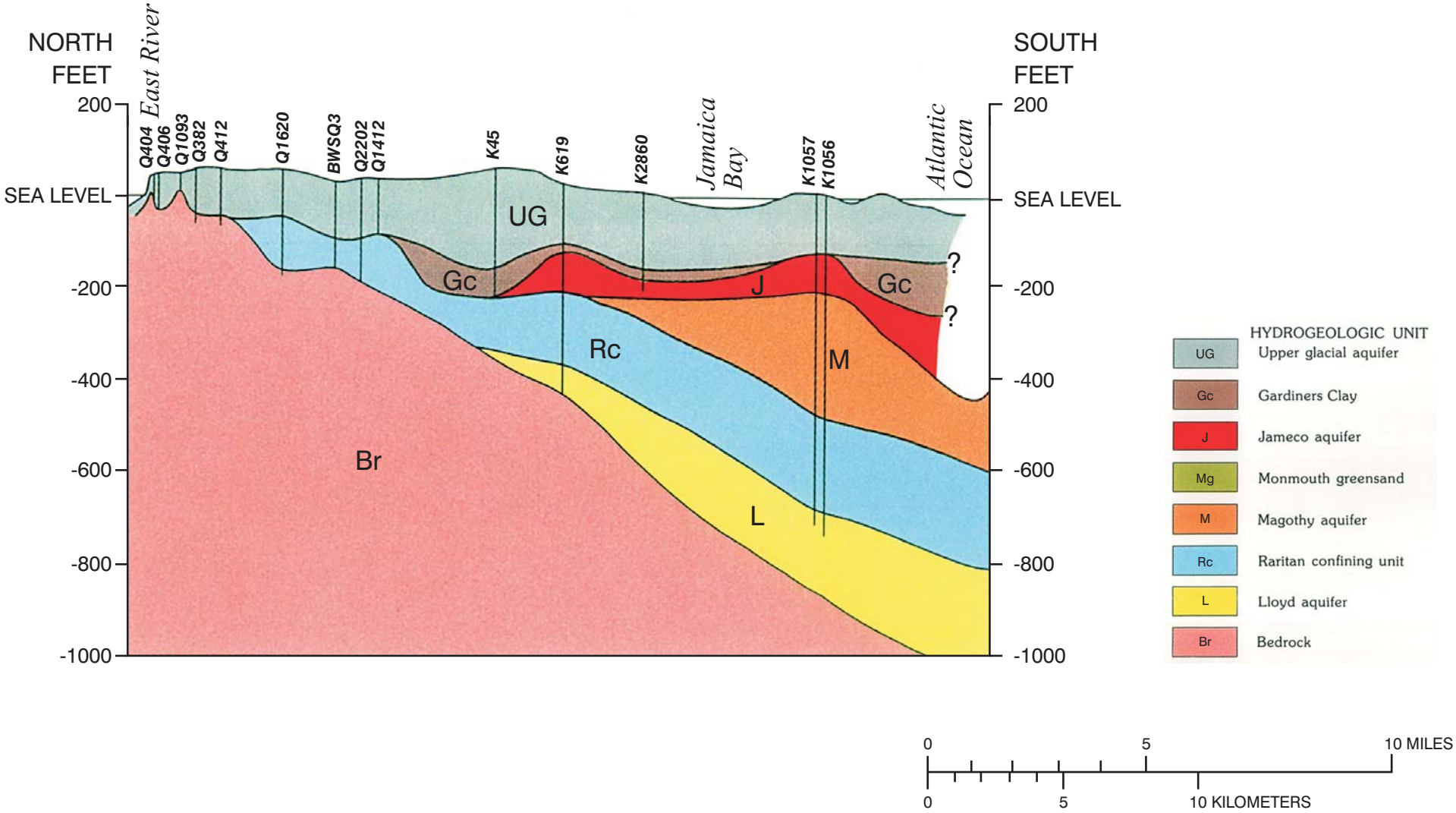
FORMER SPIC & SPAN CLEANERS SITE
PHASE I - V CONCENTRATIONS OF PCE AND TCE IN SOIL

URS

FIGURE 1-5

J:\11174989.00000\DB\GIS\SpicSpan-Report\01-05 SO_PCE_and_TCE (REV).mxd 7/14/2011 MDL

AG20578-11176359-050211-GCM



SOURCE: U.S. Geologic Survey (USGS) 1999a.
Feasibility of Using Ground Water as a Supplemental
Supply for Brooklyn and Queens, New York. Coram, NY.

URS

SPIC AND SPAN SITE
REGIONAL GEOLOGIC CROSS-SECTION

FIGURE 3-1

Legend

- ExxonMobil Monitoring Well Location
- NYSDEC Monitoring Well Location
- A A' Cross-Section Location

SOURCE: Bing Maps Aerial (c) 2010 Microsoft Corporation

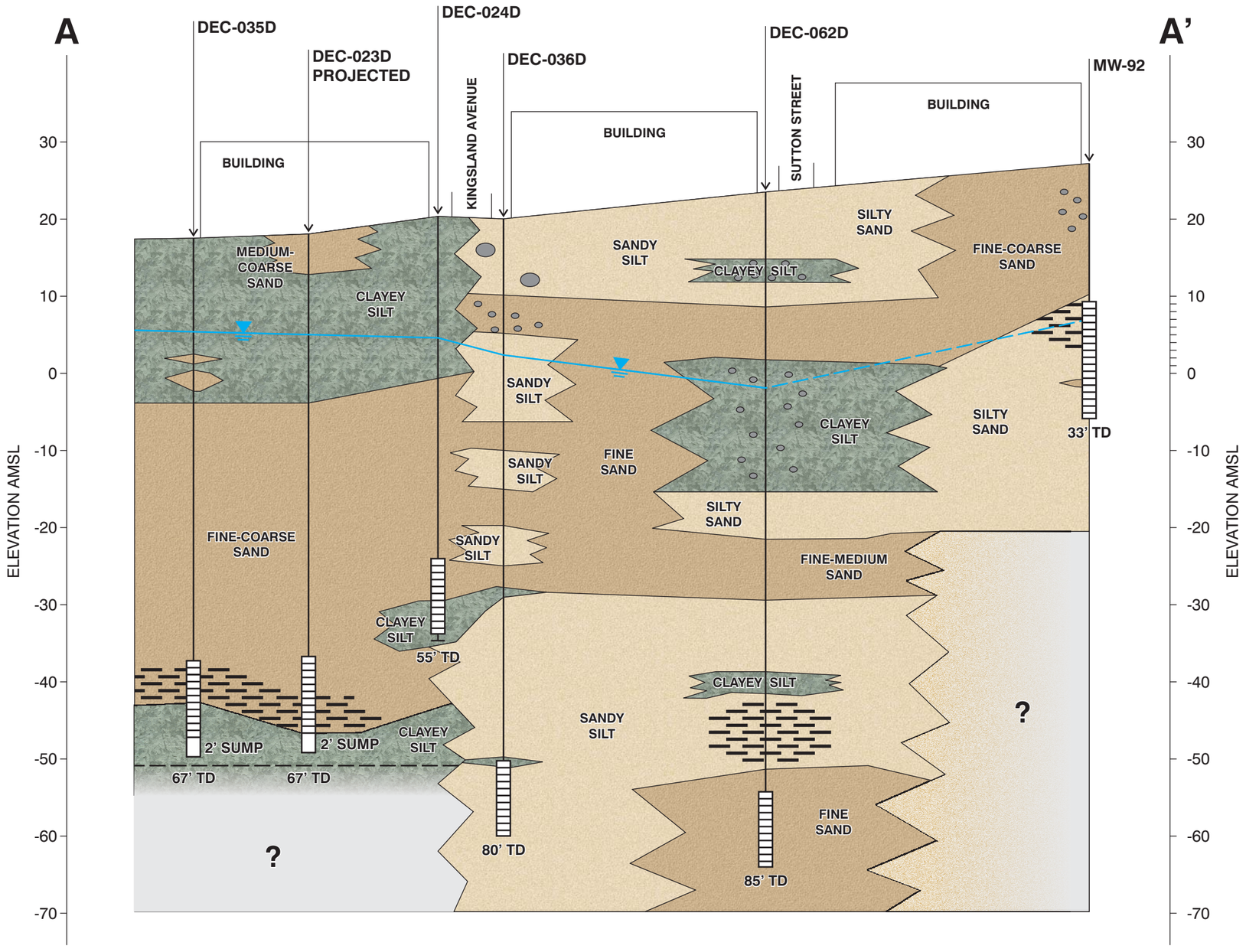
200 0 200 Feet

FORMER SPIC & SPAN CLEANERS SITE MONITORING WELL AND CROSS SECTION LOCATIONS

URS

FIGURE 3-2

J:\11174989.00000\DB\GIS\SpicSpan-Report\03-02 MW_and_Cross-Section_Locations.mxd 5/4/2011 MDL



Horizontal Scale: 1" = 100'
Vertical Scale: 1" = 15'
7.5x Vertical Exaggeration

DEC-035D ← Monitoring Well Number

← Potentiometric Surface Measured on 03/21/11

← Screened Interval of Monitoring Well

← Borehole Termination

67' TD = Total Depth

- Sand with Silt and Clay Lenses
- Clayey Silt
- Fine Sand or Fine-Coarse Sand
- Sandy Silt/ Silty Sand
- Gravel
- Cobbles

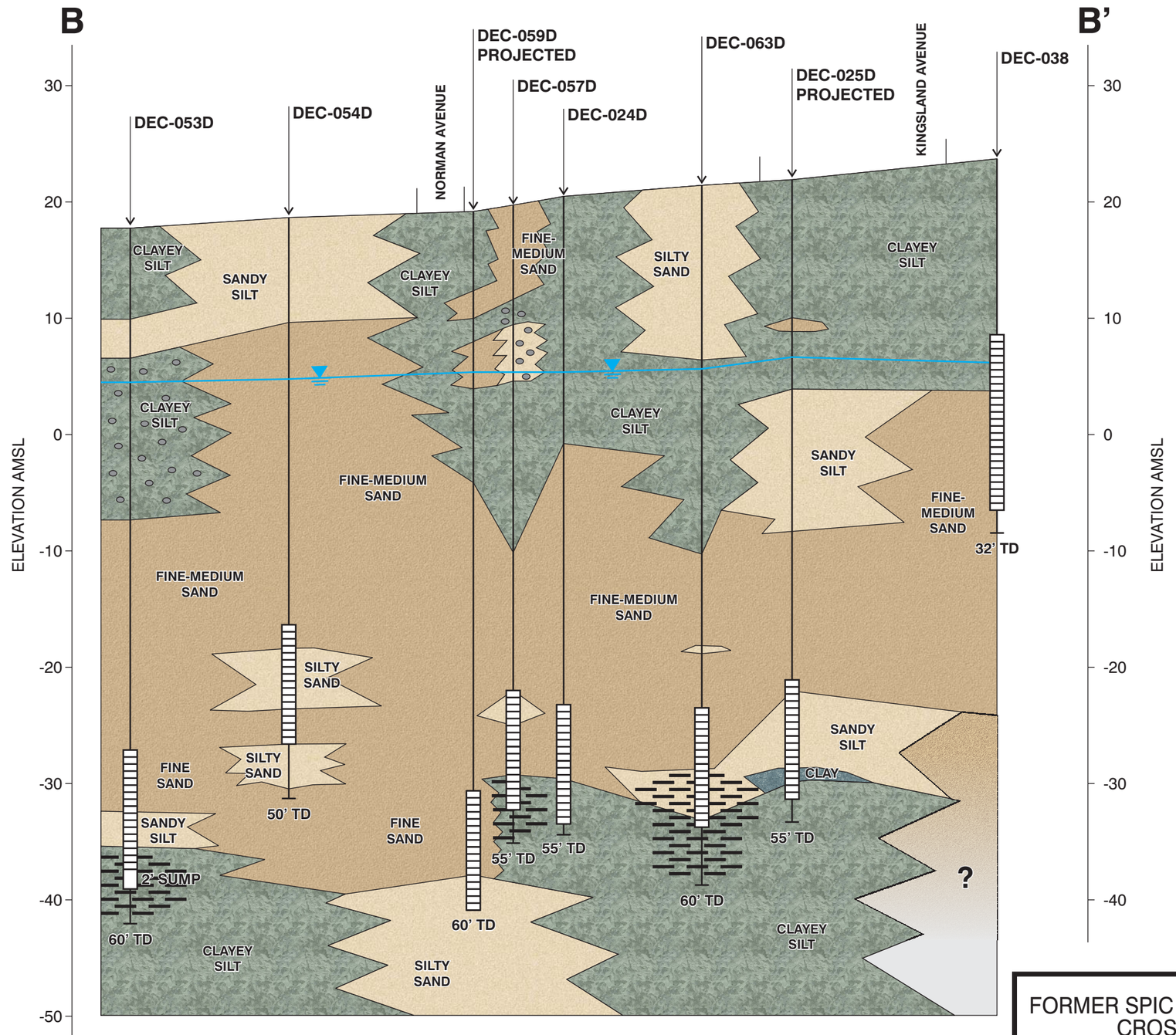
NOTES:
1. Geologic conditions shown are representative of conditions encountered at each boring location to the depth drilled. Extrapolations between borings have been interpreted using standardly accepted geologic practices and principles. Actual conditions may vary between borings from those shown.
2. Elevations based on North American Vertical Datum, 1988.
3. The depth to water was not measured in all wells on March 21, 2011.

FORMER SPIC & SPAN CLEANERS SITE
CROSS SECTION A-A'

URS

FIGURE 3-3

AG20561-11176359-040511-GCM



Horizontal Scale: 1" = 100'
Vertical Scale: 1" = 10'
10x Vertical Exaggeration

DEC-053D ← Monitoring Well Number

← Potentiometric Surface Measured on 03/21/11

← Screened Interval of Monitoring Well

← Borehole Termination

60' TD = Total Depth

- Sand with Silt and Clay Lenses
- Clayey Silt
- Fine Sand or Fine-Coarse Sand
- Sandy Silt/ Silty Sand
- Clay
- Gravel

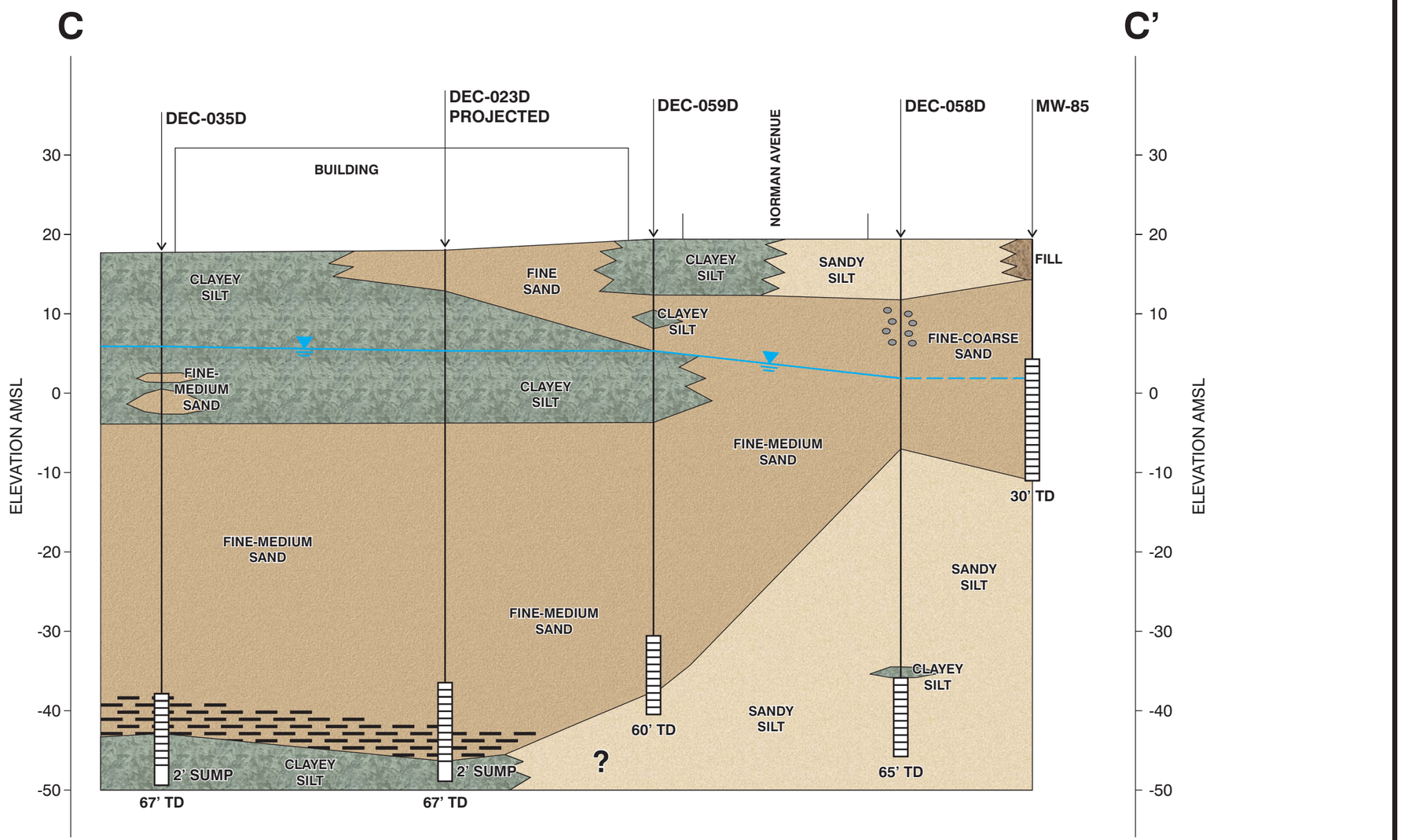
NOTES:
1. Geologic conditions shown are representative of conditions encountered at each boring location to the depth drilled. Extrapolations between borings have been interpreted using standardly accepted geologic practices and principles. Actual conditions may vary between borings from those shown.
2. Elevations based on North American Vertical Datum, 1988.
3. The depth to water was measured in all wells on March 21, 2011.

FORMER SPIC & SPAN CLEANERS SITE
CROSS SECTION B-B'

URS

FIGURE 3-4

AG20562-11176359-040511-GCM



Horizontal Scale: 1" = 50'
Vertical Scale: 1" = 15'
7.5x Vertical Exaggeration

DEC-035D ← Monitoring Well Number

← Potentiometric Surface Measured on 03/21/11

← Screened Interval of Monitoring Well

← Borehole Termination

67' TD = Total Depth

- Sand with Silt and Clay Lenses
- Clayey Silt
- Fine Sand or Fine-Coarse Sand
- Sandy Silt/ Silty Sand
- Gravel
- Fill

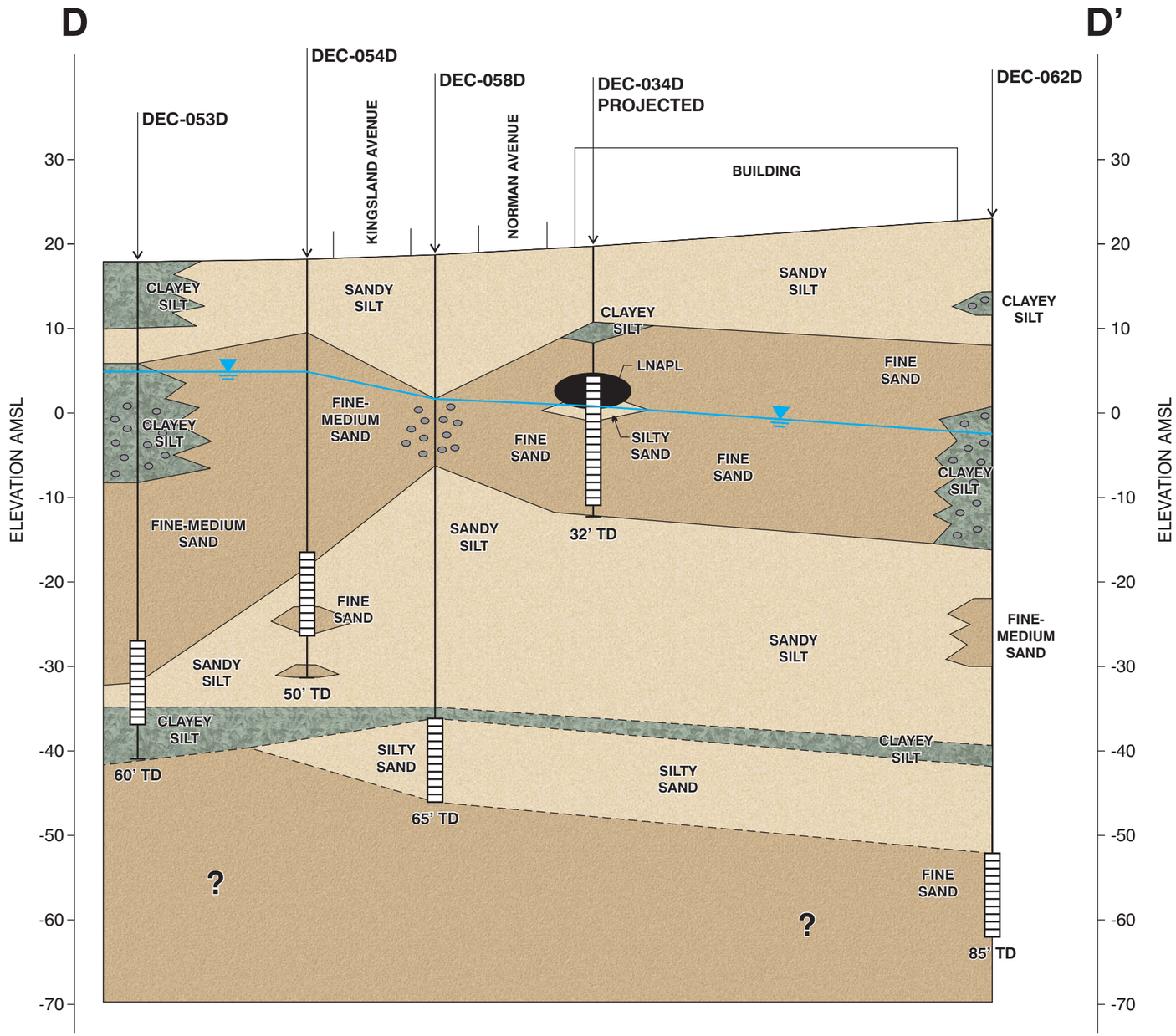
NOTES:
1. Geologic conditions shown are representative of conditions encountered at each boring location to the depth drilled. Extrapolations between borings have been interpreted using standardly accepted geologic practices and principles. Actual conditions may vary between borings from those shown.
2. Elevations based on North American Vertical Datum, 1988.
3. The depth to water was not measured in all wells on March 21, 2011.

FORMER SPIC & SPAN CLEANERS SITE
CROSS SECTION C-C'

URS

FIGURE 3-5

AG20563-11176359-040511-GCM



Horizontal Scale: 1" = 100'
Vertical Scale: 1" = 15'
7.5x Vertical Exaggeration

DEC-053D ← Monitoring Well Number

← Potentiometric Surface Measured on 03/21/11

← Screened Interval of Monitoring Well

← Borehole Termination

60' TD = Total Depth

- Clayey Silt
- Sandy Silt/ Silty Sand
- Fine Sand or Fine-Coarse Sand
- Gravel

NOTES:
1. Geologic conditions shown are representative of conditions encountered at each boring location to the depth drilled. Extrapolations between borings have been interpreted using standardly accepted geologic practices and principles. Actual conditions may vary between borings from those shown.
2. Elevations based on North American Vertical Datum, 1988.
3. The depth to water was measured in all wells on March 21, 2011.

AG20564-111176359-040511-GCM

FORMER SPIC & SPAN CLEANERS SITE
CROSS SECTION D-D'

URS

FIGURE 3-6

N

Newtown Creek

DEC-053, 4.28
DEC-054, 4.15
DEC-055, 4.71
DEC-056, 4.09
DEC-059, 5.10
DEC-023, 4.75
DEC-057, 4.75
DEC-035, 4.76
DEC-024, 5.03
DEC-058, 3.77
DEC-034, 4.33
DEC-060, 3.76
DEC-036, 3.04
DEC-061, 4.53
DEC-063, 4.93
DEC-025, 4.93
DEC-003, 4.97
DEC-038, 5.09
DEC-037, 3.77
DEC-062, 3.01
DEC-001, 8.31
DEC-002, 13.29

4.0
5.0
6.0
7.0
8.0
9.0
10.0
11.0
12.0
13.0

NORMAN AVE
BRIDGEWATER ST
NASSAU AVE
MONITOR ST
KINGSLAND AVE
SUTTON ST
MORGAN AVE
HAUSMAN ST
APOLLO ST
VAN DAM ST
VARICK AVE
MEEKER AVE

Legend

- NYSDEC Monitoring Well Location
- Approximate Direction of Groundwater Flow
- Groundwater Potentiometric Surface (ft amsl)

DEC-025, 4.93
Well ID — Groundwater Elevation

NOTE: DEC-034 and DEC-036 were not included in contour creation.

SOURCE: Bing Maps Aerial (c) 2010 Microsoft Corporation

200 0 200 Feet

FORMER SPIC & SPAN CLEANERS SITE
SHALLOW OVERBURDEN GROUNDWATER POTENTIOMETRIC SURFACE (2/24/2011)

URS

FIGURE 3-7

J:\11174989.00000\DBIGIS\SpicSpan-Report\03-07 GW_Elev_Shallow_110224.mxd 5/4/2011 MDL

Legend

- NYSDEC Monitoring Well Location
- Approximate Direction of Groundwater Flow
- Groundwater Potentiometric Surface (ft amsl)

DEC-025, 5.07
Well ID — Groundwater Elevation

NOTE: DEC-034 and DEC-036 were not included in contour creation.

SOURCE: Bing Maps Aerial (c) 2010 Microsoft Corporation

200 0 200 Feet

FORMER SPIC & SPAN CLEANERS SITE
SHALLOW OVERBURDEN GROUNDWATER POTENTIOMETRIC SURFACE (3/2/2011)

URS

FIGURE 3-8

J:\111174989.00000\DB\GIS\SpicSpan-Report\03-08 GW_Elev_Shallow_110302.mxd 5/4/2011 MDL

N

Newtown Creek

DEC-053, 4.60
DEC-054, 4.24
DEC-058, 4.11
DEC-055, 5.02
DEC-056, 5.02
DEC-059, 5.43
DEC-034, 4.05
DEC-023, 5.08
DEC-060, 4.19
DEC-037, 4.04
DEC-057, 5.07
DEC-036, 3.29
DEC-035, 4.99
DEC-024, 5.12
DEC-062, 3.24
DEC-061, 4.92
DEC-063, 5.28
DEC-001, 9.00
DEC-025, 5.14
DEC-003, 4.80
DEC-038, 5.47
DEC-002, 12.99

5.0
4.0
5.0
6.0
7.0
8.0
10.0
11.0
12.0
13.0

NORMAN AVE
BRIDGEWATER ST
NASSAU AVE
MONITOR ST
KINGSLAND AVE
SUTTON ST
MORGAN AVE
HAUSMAN ST
APOLLO ST
VAN DAM ST
VARICK AVE
MEEKER AVE

Legend

- NYSDEC Monitoring Well Location
- Approximate Direction of Groundwater Flow
- Groundwater Potentiometric Surface (ft amsl)

DEC-025, 5.14
Well ID — Groundwater Elevation

NOTE: DEC-034 and DEC-036 were not included in contour creation.

SOURCE: Bing Maps Aerial (c) 2010 Microsoft Corporation

200 0 200 Feet

FORMER SPIC & SPAN CLEANERS SITE
SHALLOW OVERBURDEN GROUNDWATER POTENTIOMETRIC SURFACE (3/21/2011)

URS

FIGURE 3-9

J:\111174989.00000\DBGIS\SpicSpan-Report\03-09 GW_Elev_Shallow_110321.mxd 5/4/2011 MDL

FORMER SPIC & SPAN CLEANERS SITE
DEEP OVERBURDEN GROUNDWATER
POTENTIOMETRIC SURFACE (2/24/2011)

URS

FIGURE 3-10

J:\111174989.00000\DBIG\S\SpicSpan-Report\03-10 GW_Elev_Deep_110224.mxd 5/4/2011 MDL

N

Newtown Creek

DEC-053D, 3.99
DEC-054D, 4.05
DEC-055D, 4.69
DEC-058D, 1.28
DEC-059D, 4.37
DEC-060D, 0.72
DEC-023D, 4.79
DEC-057D, 4.80
DEC-035D, 4.92
DEC-024DR, 4.84
DEC-024D, 4.77
DEC-036D, 2.66
DEC-062D, -2.31
DEC-061D, 3.80
DEC-063D, 5.06
DEC-025D, 5.15
DEC-003D, 2.91

3.0
2.0
1.0
0.0
-1.0
-2.0
5.0

NORMAN AVE
BRIDGEWATER ST
NASSAU AVE
MONITOR ST
KINGSLAND AVE
SUTTON ST
MORGAN AVE
HAUSMAN ST
APOLLO ST
VAN DAM ST
VARICK AVE
MEEKER AVE

Legend

- NYSDEC Monitoring Well Location
- Approximate Direction of Groundwater Flow
- Groundwater Potentiometric Surface (ft amsl)

DEC-025D, 5.15
Well ID — Groundwater Elevation

SOURCE: Bing Maps Aerial (c) 2010 Microsoft Corporation

200 0 200 Feet

FORMER SPIC & SPAN CLEANERS SITE
DEEP OVERBURDEN GROUNDWATER POTENTIOMETRIC SURFACE (3/2/2011)

URS

FIGURE 3-11

J:\111174989.00000\DBIG\S\SpicSpan-Report\03-11 GW_Elev_Deep_110302.mxd 5/4/2011 MDL

N

Newtown Creek

NORMAN AVE

BRIDGEWATER ST

NASSAU AVE

MONITOR ST

KINGSLAND AVE

SUTTON ST

MORGAN AVE

HAUSMAN ST

APOLLO ST

VAN DAM ST

VARICK AVE

MEEKER AVE

DEC-053D, 4.23

DEC-054D, 4.26

DEC-058D, 1.53

DEC-055D, 4.94

DEC-059D, 4.61

DEC-060D, 0.78

DEC-023D, 4.97

DEC-057D, 5.05

DEC-024DR, 4.94

DEC-024D, 4.79

DEC-036D, 1.99

DEC-035D, 5.16

DEC-062D, -2.5

DEC-061D, 3.78

DEC-063D, 5.31

DEC-025D, 5.33

DEC-003D, 3.15

4.0

3.0

2.0

1.0

0.0

-1.0

5.0

-2.0

Legend

- NYSDEC Monitoring Well Location
- Approximate Direction of Groundwater Flow
- Groundwater Potentiometric Surface (ft amsl)

DEC-025D, 5.33

Well ID — Groundwater Elevation

SOURCE: Bing Maps Aerial (c) 2010 Microsoft Corporation

200 0 200 Feet

FORMER SPIC & SPAN CLEANERS SITE
DEEP OVERBURDEN GROUNDWATER POTENTIOMETRIC SURFACE (3/21/2011)

URS

FIGURE 3-12

J:\111174989.00000\DBGIS\SpicSpan-Report\03-12 GW_Elev_Deep_110321.mxd 5/4/2011 MDL

N

Newtown Creek

MONITOR ST

KINGSLAND AVE

NORMAN AVE

MORGAN AVE

BRIDGEWATER ST

SUTTON ST

NASSAU AVE

VARICK AVE

VAN DAM ST

APOLLO ST

HAUSMAN ST

MEEKER AVE

DEC-053 (8'-9')	CRIT 1	CRIT 2	6/09
VOCs:			
Acetone	0.05	0.05	0.074

DEC-053 (14'-15')	CRIT 1	CRIT 2	6/09
VOCs:			
Benzene	0.06	0.06	1.3
Isopropylbenzene (Cumene)	2.3	2.3	14
Xylene (total)	0.26	1.6	3.4

DEC-058 (14'-15')	CRIT 1	CRIT 2	2/11
VOCs:			
Isopropylbenzene (Cumene)	2.3	2.3	3.5

DEC-024DR (45'-46')	CRIT 1	CRIT 2	6/09
VOCs:			
Tetrachloroethene	1.3	1.3	1000

SSB-05 (8.5'-9')	CRIT 1	CRIT 2	2/11
VOCs:			
Tetrachloroethene	1.3	1.3	34

SSB-03 (1'-1.5')	CRIT 1	CRIT 2	2/11
VOCs:			
Tetrachloroethene	1.3	1.3	2000

SSB-03 (5.5'-6')	CRIT 1	CRIT 2	2/11
VOCs:			
Tetrachloroethene	1.3	1.3	110

SSB-08 (0.5'-1')	CRIT 1	CRIT 2	2/11
VOCs:			
1,2-Dichloroethene (cis)	0.25	0.25	0.35
Tetrachloroethene	1.3	1.3	1300
Trichloroethene	0.47	0.47	21

DEC-054 (14'-15')	CRIT 1	CRIT 2	6/09
VOCs:			
Benzene	0.06	0.06	0.84
Isopropylbenzene (Cumene)	2.3	2.3	34

DEC-054 (18'-19')	CRIT 1	CRIT 2	6/09
VOCs:			
Benzene	0.06	0.06	0.83
Isopropylbenzene (Cumene)	2.3	2.3	35

DEC-034 (14'-15')	CRIT 1	CRIT 2	5/08
VOCs:			
Isopropylbenzene (Cumene)	2.3	2.3	2.4

SSB-04 (22'-22.5')	CRIT 1	CRIT 2	2/11
VOCs:			
Tetrachloroethene	1.3	1.3	1.8

SG-071 (0.5'-1')	CRIT 1	CRIT 2	2/11
VOCs:			
Tetrachloroethene	1.3	1.3	200

DEC-025D (0'-1.5')	CRIT 1	CRIT 2	1/11
VOCs:			
Tetrachloroethene	1.3	1.3	140

DEC-025D (1.5'-2.5')	CRIT 1	CRIT 2	1/11
VOCs:			
Tetrachloroethene	1.3	1.3	1300

SSB-06 (13'-13.5')	CRIT 1	CRIT 2	2/11
VOCs:			
Tetrachloroethene	1.3	1.3	1200
Trichloroethene	0.47	0.47	0.49

DEC-056
SG-065
DEC-059
DEC-023
SG-064
DEC-057
DEC-037
DEC-036
DEC-036D
DEC-035
DEC-024
DEC-061
SSB-01
SSB-07
DEC-025
SSB-02
SG-069
SG-067
DEC-063
DEC-063D
SG-066
DEC-001
DEC-003
SG-070
SG-072
SG-074
DEC-038
SG-075
SG-076
SG-073
SSB-10
SG-077
DEC-002

Legend

- NYSDEC Soil Sample

NOTES: Units are in mg/kg; CRIT 1 = Unrestricted Use Criteria; CRIT 2 = Protection of Groundwater Use Criteria

SOURCE: Bing Maps Aerial (c) 2010 Microsoft Corporation

200 0 200 Feet

FORMER SPIC & SPAN CLEANERS SITE
SOIL ANALYTICAL RESULTS EXCEEDING UNRESTRICTED USE AND PROTECTION OF GROUNDWATER CRITERIA

URS

FIGURE 4-1A

J:\111174989.00000\DBIG\SIS\SpicSpan-Report\04-01A SO_Analytical (REV).mxd 7/15/2011 MDL

N

Newtown Creek

MONITOR ST

KINGSLAND AVE

NORMAN AVE

MORGAN AVE

BRIDGEWATER ST

SUTTON ST

NASSAU AVE

VAN DAM ST

VARICK AVE

APOLLO ST

HAUSMAN ST

MEEKER AVE

DEC-053
DEC-054
DEC-058
DEC-056
DEC-023
SG-065
DEC-059
DEC-034
DEC-057
DEC-037
SG-064
DEC-036
DEC-036D
DEC-035
DEC-024
DEC-061
DEC-025
SSB-02
SSB-07
SSB-04
SG-069
SG-067
DEC-063
DEC-063D
SSB-01
SG-066
DEC-001
DEC-003
SG-070
SG-072
SSB-10
SG-075
SG-074
DEC-038
SG-076
SG-073
SG-077
DEC-002

DEC-024DR (45'-46')	CRIT 1	CRIT 2	6/09
VOCs:			
Tetrachloroethene	5.5	19	1000

SSB-05 (8.5'-9')	CRIT 1	CRIT 2	2/11
VOCs:			
Tetrachloroethene	5.5	19	34

SSB-03 (1'-1.5')	CRIT 1	CRIT 2	2/11
VOCs:			
Tetrachloroethene	5.5	19	2000

SSB-03 (5.5'-6')	CRIT 1	CRIT 2	2/11
VOCs:			
Tetrachloroethene	5.5	19	110

SSB-08 (0.5'-1')	CRIT 1	CRIT 2	2/11
VOCs:			
Tetrachloroethene	5.5	19	1300
Trichloroethene	10	21	21

SG-071 (0.5'-1')	CRIT 1	CRIT 2	2/11
VOCs:			
Tetrachloroethene	5.5	19	200

DEC-025D (0'-1.5')	CRIT 1	CRIT 2	1/11
VOCs:			
Tetrachloroethene	5.5	19	140

DEC-025D (1.5'-2.5')	CRIT 1	CRIT 2	1/11
VOCs:			
Tetrachloroethene	5.5	19	1300

SSB-06 (13'-13.5')	CRIT 1	CRIT 2	2/11
VOCs:			
Tetrachloroethene	5.5	19	1200

Legend

- NYSDEC Soil Sample

NOTES: Units are in mg/kg; CRIT 1 = Residential Use Criteria; CRIT 2 = Restricted Residential Use Criteria

SOURCE: Bing Maps Aerial (c) 2010 Microsoft Corporation

200 0 200 Feet

FORMER SPIC & SPAN CLEANERS SITE
SOIL ANALYTICAL RESULTS EXCEEDING RESIDENTIAL USE AND RESTRICTED RESIDENTIAL USE CRITERIA

URS

FIGURE 4-1B

J:\11174988.00000\DB\GIS\SpicSpan-Report\04-01B SO_Analytical (REV).mxd 7/15/2011 MDL

DEC-053D	CRIT	3/11
VOCs:		
Tetrachloroethene	5	12

DEC-053	CRIT	3/11
VOCs:		
1,1-Dichloroethane	5	6
Benzene	1	33
Isopropylbenzene (Cumene)	5	27

DEC-054D	CRIT	3/11
VOCs:		
1,2-Dichloroethene (cis)	5	44
Tetrachloroethene	5	800
Trichloroethene	5	18
Vinyl chloride	2	14

DEC-054	CRIT	3/11
VOCs:		
Benzene	1	5
Isopropylbenzene (Cumene)	5	6
Tetrachloroethene	5	18

DEC-059D	CRIT	3/11
VOCs:		
Tetrachloroethene	5	38

DEC-055D	CRIT	3/11
VOCs:		
Tetrachloroethene	5	6

DEC-023	CRIT	3/11
VOCs:		
Isopropylbenzene (Cumene)	5	41
Tetrachloroethene	5	15

DEC-057	CRIT	3/11
VOCs:		
1,2-Dichloroethene (cis)	5	72
Isopropylbenzene (Cumene)	5	8
Tetrachloroethene	5	19
Vinyl chloride	2	610

DEC-035	CRIT	3/11
VOCs:		
Tetrachloroethene	5	6

DEC-057D	CRIT	3/11
VOCs:		
1,2,4-Trichlorobenzene	5	7
Methyl tert-butyl ether	10	13
Tetrachloroethene	5	76000
Trichloroethene	5	59

DEC-024	CRIT	3/11
VOCs:		
1,2-Dichloroethene (cis)	5	230
Isopropylbenzene (Cumene)	5	35
Tetrachloroethene	5	110
Trichloroethene	5	100
Vinyl chloride	2	220

DEC-061	CRIT	3/11
VOCs:		
1,2-Dichloroethene (cis)	5	320
Tetrachloroethene	5	900
Trichloroethene	5	320

DEC-061D	CRIT	3/11
VOCs:		
1,2-Dichloroethene (cis)	5	7
Tetrachloroethene	5	4500
Trichloroethene	5	12

DEC-058	CRIT	3/11
VOCs:		
1,1-Dichloroethene	5	53
1,2-Dichloroethene (cis)	5	14000
1,2-Dichloroethene (trans)	5	28
1,4-Dichlorobenzene	3	8
Isopropylbenzene (Cumene)	5	27
Tetrachloroethene	5	18000
Trichloroethene	5	3700
Vinyl chloride	2	3200

DEC-058D	CRIT	3/11
VOCs:		
1,2-Dichloroethene (cis)	5	860
Tetrachloroethene	5	14000
Trichloroethene	5	870
Vinyl chloride	2	82

DEC-060	CRIT	3/11
VOCs:		
1,1-Dichloroethene	5	16
1,2-Dichloroethene (cis)	5	6900
1,2-Dichloroethene (trans)	5	45
Tetrachloroethene	5	20000
Trichloroethene	5	3300
Vinyl chloride	2	160

DEC-034	CRIT	3/11
VOCs:		
1,2-Dichloroethene (cis)	5	30
Benzene	1	430
Isopropylbenzene (Cumene)	5	15
Trichloroethene	5	8
Vinyl chloride	2	13

DEC-060D	CRIT	3/11
VOCs:		
1,1-Dichloroethene	5	12
1,2-Dichloroethane	0.6	4
1,2-Dichloroethene (cis)	5	3800
1,2-Dichloroethene (trans)	5	20
Tetrachloroethene	5	19000
Trichloroethene	5	1600
Vinyl chloride	2	240

DEC-036	CRIT	3/11
VOCs:		
1,1-Dichloroethene	5	6
1,2-Dichloroethene (cis)	5	3200
1,2-Dichloroethene (trans)	5	8
Tetrachloroethene	5	7400
Trichloroethene	5	1500
Vinyl chloride	2	140

DEC-036D	CRIT	3/11
VOCs:		
1,2-Dichloroethane	0.6	4
1,2-Dichloroethene (cis)	5	780
Tetrachloroethene	5	6100
Trichloroethene	5	530
Vinyl chloride	2	5

DEC-001	CRIT	3/11
VOCs:		
Tetrachloroethene	5	29
Trichloroethene	5	82

DEC-062	CRIT	3/11
VOCs:		
Tetrachloroethene	5	31
Trichloroethene	5	13

DEC-003D	CRIT	3/11
VOCs:		
1,2-Dichloroethene (cis)	5	32
Tetrachloroethene	5	280
Trichloroethene	5	39

DEC-025	CRIT	3/11
VOCs:		
1,2-Dichloroethene (cis)	5	30
Tetrachloroethene	5	1400
Trichloroethene	5	120

DEC-025D	CRIT	3/11
VOCs:		
Tetrachloroethene	5	11

DEC-055 DEC-056 DEC-059 DEC-023D DEC-035D DEC-062D DEC-063 DEC-063D DEC-038 DEC-002 DEC-037

MONITOR ST NORMAN AVE KINGSLAND AVE SUTTON ST MORGAN AVE HAUSMAN ST NASSAU AVE BRIDGEWATER ST VARICK AVE VAN DAM ST MEEKER AVE APOL

Newtown Creek

Legend

NYSDEC Monitoring Well Location

NOTE: Units are in µg/L
CRITERIA: NYSDEC TOGS 1.1.1 Ambient Water Quality Standards, Class 6A
SOURCE: Bing Maps Aerial (c) 2010 Microsoft Corporation

200 0 200 Feet

FORMER SPIC & SPAN CLEANERS SITE
RI GROUNDWATER ANALYTICAL RESULTS

URS

FIGURE 4-2

J:\111174989.00000\DBGIS\SpicSpan-Report\04-02 GW_Analytical.mxd 5/4/2011 MDL

N

Newtown Creek

MONITOR ST

DEC-053, (ND), (ND)

MW-087, (ND), (ND)

MW-081, (ND), (ND)

DEC-054, (18), (2)

MW-085, (ND), (ND)

MW-083, (ND), (ND)

DEC-058, (18000), (3700)

DEC-055, (4), (ND)

DEC-060, (20000), (3300)

DEC-056, (5), (ND)

DEC-034, (3), (8)

MW-095, (ND), (ND)

DEC-023, (15), (ND)

DEC-037, (1), (2)

DEC-059, (5), (ND)

DEC-036, (7400), (1500)

DEC-035, (6), (ND)

DEC-024, (110), (100)

DEC-057, (19), (3)

DEC-061, (900), (320)

DEC-062, (31), (13)

DEC-063, (3), (ND)

MW-092, (1.2), (64)

DEC-025, (1400), (120)

DEC-001, (29), (82)

DEC-003, (6.4), (12)

DEC-038, (ND), (ND)

DEC-002, (1), (2)

MW-014, (ND), (ND)

NORMAN AVE

BRIDGEWATER ST

HAUSMAN ST

MORGAN AVE

SUTTON ST

KINGSLAND AVE

NASSAU AVE

VARICK AVE

VAN DAM ST

MEEKER AVE

APOL

Legend

- ExxonMobil Monitoring Well Location
- NYSDEC Monitoring Well Location

PCE Isoconcentration:

- 100
- 1000
- 10000

Well ID: DEC-001, (29), (82) — TCE Concentration; PCE Concentration

ND = Not Detected

NOTE: Units are in µg/L

SOURCE: Bing Maps Aerial (c) 2010 Microsoft Corporation

200 0 200 Feet

FORMER SPIC & SPAN CLEANERS SITE
HISTORIC AND RI PCE ISOCONCENTRATION CONTOURS IN SHALLOW GROUNDWATER

URS

FIGURE 4-3

J:\111174989.00000\DBGIS\SpicSpan-Report\04-03 Historic_PCE_and_TCE_Shallow_GW.mxd 5/4/2011 MDL

N

Newtown Creek

MONITOR ST

DEC-053D, (12), (ND)

DEC-054D, (800), (18)

DEC-055D, (6), (ND)

DEC-058D, (14000), (870)

DEC-059D, (38), (ND)

DEC-060D, (19000), (1600)

DEC-023D, (3), (ND)

DEC-035D, (2), (ND)

DEC-036D, (6100), (530)

DEC-057D, (76000), (59)

DEC-062D, (3), (ND)

DEC-063D, (ND), (ND)

DEC-061D, (4500), (12)

DEC-025D, (11), (ND)

DEC-003D, (280), (39)

NORMAN AVE

BRIDGEWATER ST

HAUSMAN ST

MORGAN AVE

SUTTON ST

KINGSLAND AVE

NASSAU AVE

VARICK AVE

VAN DAM ST

MEEKER AVE

AVOL

Legend

NYSDEC Monitoring Well Location

PCE Isoconcentration:

100

1000

10000

Well ID — DEC-025D, (11), (ND) — TCE Concentration; PCE Concentration

ND = Not Detected

NOTE: Units are in µg/L

SOURCE: Bing Maps Aerial (c) 2010 Microsoft Corporation

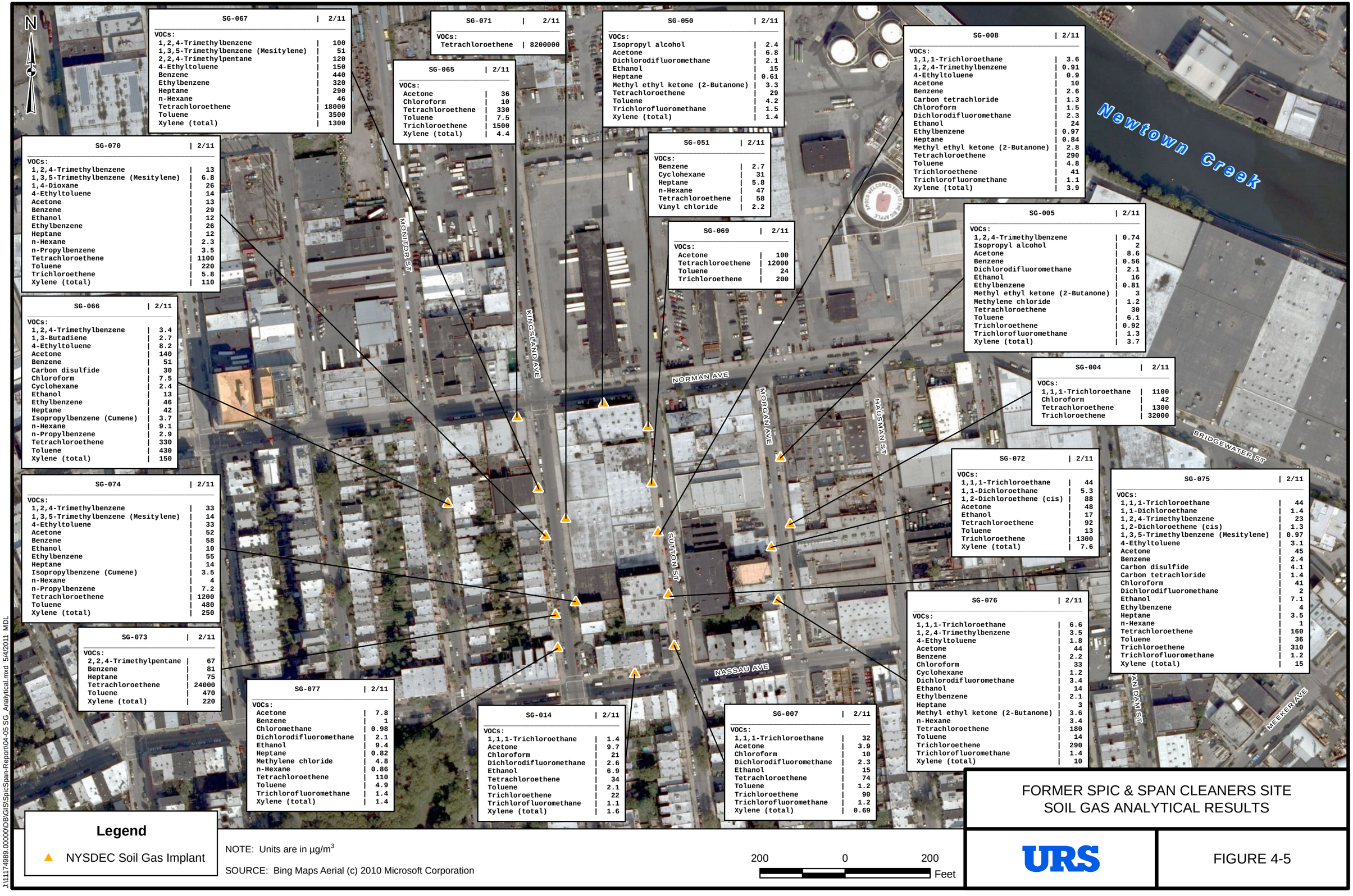
200 0 200 Feet

FORMER SPIC & SPAN CLEANERS SITE
HISTORIC AND RI PCE ISOCONCENTRATION CONTOURS IN DEEP GROUNDWATER

URS

FIGURE 4-4

J:\111174989.00000\DBIG\SpicSpan-Report\04-04 Historic_PCE_and_TCE_Deep_GW.mxd 5/4/2011 MDL



SG-067	2/11
VOCs:	
1,2,4-Trimethylbenzene	100
1,3,5-Trimethylbenzene (Mesitylene)	51
2,2,4-Trimethylpentane	120
4-Ethyltoluene	150
Benzene	440
Ethylbenzene	320
Heptane	290
n-Hexane	46
Tetrachloroethene	18000
Toluene	3500
Xylene (total)	1300

SG-071	2/11
VOCs:	
Tetrachloroethene	8200000

SG-065	2/11
VOCs:	
Acetone	36
Chloroform	10
Tetrachloroethene	330
Toluene	7.5
Trichloroethene	1500
Xylene (total)	4.4

SG-050	2/11
VOCs:	
Isopropyl alcohol	2.4
Acetone	6.8
Dichlorodifluoromethane	2.1
Ethanol	15
Heptane	0.61
Methyl ethyl ketone (2-Butanone)	3.3
Tetrachloroethene	29
Toluene	4.2
Trichlorofluoromethane	1.5
Xylene (total)	1.4

SG-008	2/11
VOCs:	
1,1,1-Trichloroethane	3.6
1,2,4-Trimethylbenzene	0.91
4-Ethyltoluene	0.9
Acetone	10
Benzene	2.6
Carbon tetrachloride	1.3
Chloroform	1.5
Dichlorodifluoromethane	2.3
Ethanol	24
Ethylbenzene	0.97
Heptane	0.84
Methyl ethyl ketone (2-Butanone)	2.8
Tetrachloroethene	290
Toluene	4.8
Trichloroethene	41
Trichlorofluoromethane	1.1
Xylene (total)	3.9

SG-070	2/11
VOCs:	
1,2,4-Trimethylbenzene	13
1,3,5-Trimethylbenzene (Mesitylene)	6.8
1,4-Dioxane	26
4-Ethyltoluene	14
Acetone	13
Benzene	29
Ethanol	12
Ethylbenzene	26
Heptane	12
n-Hexane	2.3
n-Propylbenzene	3.5
Tetrachloroethene	1100
Toluene	220
Trichloroethene	5.8
Xylene (total)	110

SG-051	2/11
VOCs:	
Benzene	2.7
Cyclohexane	31
Heptane	5.8
n-Hexane	47
Tetrachloroethene	58
Vinyl chloride	2.2

SG-069	2/11
VOCs:	
Acetone	100
Tetrachloroethene	12000
Toluene	24
Trichloroethene	200

SG-005	2/11
VOCs:	
1,2,4-Trimethylbenzene	0.74
Isopropyl alcohol	2
Acetone	8.6
Benzene	0.56
Dichlorodifluoromethane	2.1
Ethanol	16
Ethylbenzene	0.81
Methyl ethyl ketone (2-Butanone)	3
Methylene chloride	1.2
Tetrachloroethene	30
Toluene	6.1
Trichloroethene	0.92
Trichlorofluoromethane	1.3
Xylene (total)	3.7

SG-066	2/11
VOCs:	
1,2,4-Trimethylbenzene	3.4
1,3-Butadiene	2.7
4-Ethyltoluene	8.2
Acetone	140
Benzene	51
Carbon disulfide	30
Chloroform	7.5
Cyclohexane	2.4
Ethanol	13
Ethylbenzene	46
Heptane	42
Isopropylbenzene (Cumene)	3.7
n-Hexane	9.1
n-Propylbenzene	2.9
Tetrachloroethene	330
Toluene	430
Xylene (total)	150

SG-004	2/11
VOCs:	
1,1,1-Trichloroethane	1100
Chloroform	42
Tetrachloroethene	1300
Trichloroethene	32000

SG-072	2/11
VOCs:	
1,1,1-Trichloroethane	44
1,1-Dichloroethane	5.3
1,2-Dichloroethene (cis)	88
Acetone	48
Ethanol	17
Tetrachloroethene	92
Toluene	13
Trichloroethene	1300
Xylene (total)	7.6

SG-075	2/11
VOCs:	
1,1,1-Trichloroethane	44
1,1-Dichloroethane	1.4
1,2,4-Trimethylbenzene	23
1,2-Dichloroethene (cis)	1.3
1,3,5-Trimethylbenzene (Mesitylene)	0.97
4-Ethyltoluene	3.1
Acetone	45
Benzene	2.4
Carbon disulfide	4.1
Carbon tetrachloride	1.4
Chloroform	41
Dichlorodifluoromethane	2
Ethanol	7.1
Ethylbenzene	4
Heptane	3.5
n-Hexane	1
Tetrachloroethene	160
Toluene	36
Trichloroethene	310
Trichlorofluoromethane	1.2
Xylene (total)	15

SG-074	2/11
VOCs:	
1,2,4-Trimethylbenzene	33
1,3,5-Trimethylbenzene (Mesitylene)	14
4-Ethyltoluene	33
Acetone	52
Benzene	58
Ethanol	10
Ethylbenzene	55
Heptane	14
Isopropylbenzene (Cumene)	3.5
n-Hexane	4
n-Propylbenzene	7.2
Tetrachloroethene	1200
Toluene	480
Xylene (total)	250

SG-073	2/11
VOCs:	
2,2,4-Trimethylpentane	67
Benzene	81
Heptane	75
Tetrachloroethene	24000
Toluene	470
Xylene (total)	220

SG-077	2/11
VOCs:	
Acetone	7.8
Benzene	1
Chloromethane	0.98
Dichlorodifluoromethane	2.1
Ethanol	9.4
Heptane	0.82
Methylene chloride	4.8
n-Hexane	0.86
Tetrachloroethene	110
Toluene	4.9
Trichlorofluoromethane	1.4
Xylene (total)	1.4

SG-014	2/11
VOCs:	
1,1,1-Trichloroethane	1.4
Acetone	9.7
Chloroform	21
Dichlorodifluoromethane	2.6
Ethanol	6.9
Tetrachloroethene	34
Toluene	2.1
Trichloroethene	22
Trichlorofluoromethane	1.1
Xylene (total)	1.6

SG-007	2/11
VOCs:	
1,1,1-Trichloroethane	32
Acetone	3.9
Chloroform	10
Dichlorodifluoromethane	2.3
Ethanol	15
Tetrachloroethene	74
Toluene	1.2
Trichloroethene	90
Trichlorofluoromethane	1.2
Xylene (total)	0.69

SG-076	2/11
VOCs:	
1,1,1-Trichloroethane	6.6
1,2,4-Trimethylbenzene	3.5
4-Ethyltoluene	1.8
Acetone	44
Benzene	2.2
Chloroform	33
Cyclohexane	1.2
Dichlorodifluoromethane	3.4
Ethanol	14
Ethylbenzene	2.1
Heptane	3
Methyl ethyl ketone (2-Butanone)	3.6
n-Hexane	3.4
Tetrachloroethene	180
Toluene	14
Trichloroethene	290
Trichlorofluoromethane	1.4
Xylene (total)	10

Legend

▲ NYSDEC Soil Gas Implant

NOTE: Units are in µg/m^3

SOURCE: Bing Maps Aerial (c) 2010 Microsoft Corporation

200 0 200 Feet

FORMER SPIC & SPAN CLEANERS SITE
SOIL GAS ANALYTICAL RESULTS

URS

FIGURE 4-5

J:\11174989.00000\DB\GIS\SpicSpan-Report\04-05 SG_Analytical.mxd 5/4/2011 MDL

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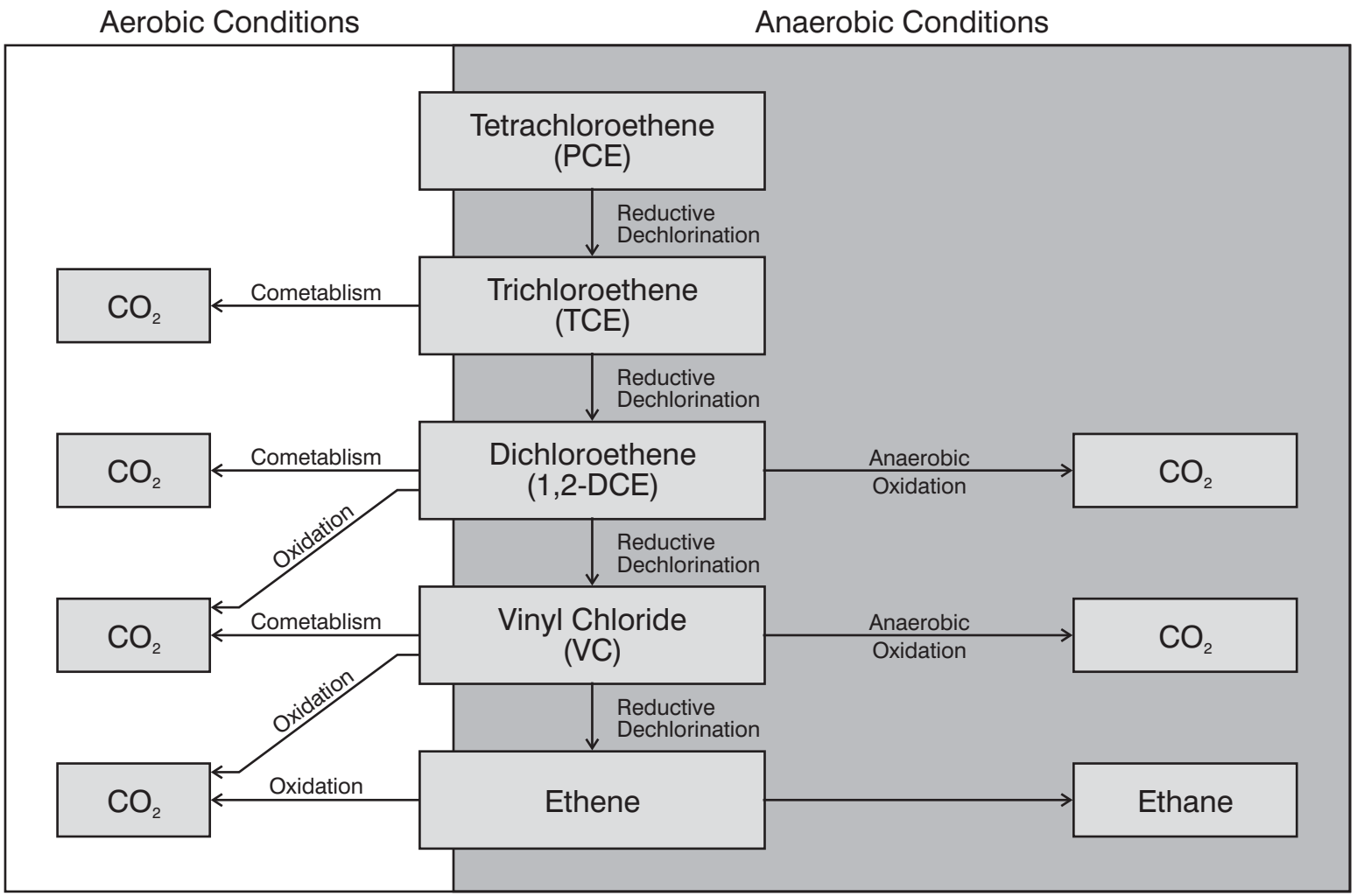

URS

PCE/TCE DEGRADATION

FIGURE 5-1

PLATES

URS

FORMER SPIC & SPAN CLEANERS SITE
MONITORING WELL AND BORING LOCATIONS

PLATE 1

J:\11174989.00000\DB\GIS\SpicSpan-Report\Plate 01 MW_SB_Locations (REV).mxd 7/14/2011 MDL

N

Newtown Creek

AMOCO WELCOMES YOU TO THE BIG APPLE

NORMAN AVE

BRIDGEWATER ST

MONITOR ST

KINGSLAND AVE

SUTTON ST

MORGAN AVE

HAUSMAN ST

APOLLO ST

NASSAU AVE

VANDERVOORT AVE

ANTHONY ST

DRIGGS AVE

MORGAN AVE

MP-008D

MP-018D

SG-050
SG-025
SG-065
PS-2
SG-064
PS-7
SG-051
PS-3
SG-024
SG-027
SG-005
PS-1
SG-069
SG-067
SG-068
PS-14
SG-066
PS-6
PS-8
PS-10
SG-071
SG-004
SG-008
SG-070
SG-052
SG-013
PS-5
SG-072
PS-9
PS-4
PS-13
SG-075
SG-074
SG-076
PS-12
SG-012
SG-073
PS-11
SG-053
SG-007
SG-077
SG-006
SG-014

Legend

- Proposed Phase II RI Soil Gas Implant
- NYSDEC Soil Gas Implant
- ExxonMobil Soil Gas Implant

SOURCE: Bing Maps Aerial (c) 2010 Microsoft Corporation

200 0 200 Feet

URS

FORMER SPIC & SPAN CLEANERS SITE
SOIL GAS IMPLANT LOCATIONS

PLATE 2

J:\11174989.00000\DBG\GIS\SpicSpan-Report\Plate 02 SG_Locations (REV).mxd 7/14/2011 MDL