

RECORD OF DECISION

Econo Quick Gas & Car Wash Property
Environmental Restoration Project
Warrensburg, Warren County
Site No. E557021
March 2012



Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

DECLARATION STATEMENT - RECORD OF DECISION

Econo Quick Gas & Car Wash Property
Environmental Restoration Project
Warrensburg, Warren County
Site No. E557021
March 2012

Statement of Purpose and Basis

This document presents the remedy for the Econo Quick Gas & Car Wash Property site, an environmental restoration site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Econo Quick Gas & Car Wash Property site and the public's input to the proposed remedy presented by the Department. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Description of Selected Remedy

During the course of the investigation certain actions, known as interim remedial measures (IRMs), were undertaken at the above referenced site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) or alternatives analysis (AA). The IRM(s) undertaken at this site are discussed in Section 6.2.

Based on the implementation of the IRM(s), the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment; therefore No Further Action is the selected remedy. The remedy may include continued operation of a remedial system if one was installed during the IRM and the implementation of any prescribed institutional controls/engineering controls (ICs/ECs) that have been identified as being part of the remedy for the site.

The IRM(s) conducted at the site attained the remediation objectives identified for this site in Section 6.5 for the protection of public health and the environment.

New York State Department of Health Acceptance

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

Declaration

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

March 15, 2012

Date



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

RECORD OF DECISION

Econo Quick Gas & Car Wash Property
Warrensburg, Warren County
Site No. E557021
March 2012

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site resulted in threats to public health and the environment that were addressed by actions known as interim remedial measures (IRMs), which were undertaken at the site. An IRM is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before completion of the remedial investigation (RI) or feasibility study (FS). The IRMs undertaken at this site are discussed in Section 6.2. Contaminants include hazardous wastes and/or petroleum.

Based on the implementation of the IRM(s), the findings of the investigation of this site indicate that the site no longer poses a threat to human health or the environment. The IRM(s) conducted at the site attained the remediation objectives identified for this site, which are presented in Section 6.5, for the protection of public health and the environment. No Further Action is the remedy selected by this Record of Decision (ROD). A No Further Action remedy may include continued operation of any remedial system installed during the IRM and the implementation of any prescribed controls that have been identified as being part of the remedy for the site. This ROD identifies the IRM(s) conducted and discusses the basis for No Further Action.

The 1996 Clean Water/ Clean Air Bond Act provides funding to municipalities for the investigation and cleanup of brownfields. Brownfields are abandoned, idled, or under-used properties where redevelopment is complicated by real or perceived environmental contamination. They typically are former industrial or commercial properties where operations may have resulted in environmental contamination. Brownfields often pose not only environmental, but legal and financial burdens on communities. Under the Environmental Restoration Program, the state provides grants to municipalities to reimburse up to 90 percent of eligible costs for site investigation and remediation activities. Once remediated, the property can then be reused.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

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

A public availability session was held on February 21, 2012. The session provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. The public comment period for the PRAP ended on March 14, 2012.

As documented in the responsiveness summary in Appendix A of the ROD, there were no public comments received for the Econo Quick site.

Receive Site Citizen Participation Information By Email

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

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The former Econoquick Gas and Car Wash Site is located at 9 Richards Avenue (NYS Route 418) in the Town of Warrensburg, Warren County, New York.

Site Features: The site comprises approximately 0.7 acres and had been improved with a car wash building on the western side of the site and a stand-alone wooden framed kiosk located in the parking area east of the car wash. Pump islands and bulk gasoline storage and retail sales were undertaken at the location starting around 1970. The remainder of the property was vacant and mostly paved. The Warrensburg Laundry and Dry Cleaner is adjacent and down gradient of the site and an auto shop and Getty gas station are adjacent up gradient. The Headwaters Health Care facility is located across the street from the site.

Current Zoning/Uses: The site consists of two tax parcels, the first being approximately 0.6 acres in size and identified on the Warren County Real Property Tax Maps as Parcel 211.13-4-39 and the second being a 0.086-acre parcel identified as Parcel 211.13-4-11. The site is currently zoned Hamlet Commercial and is assessed as vacant land in a commercial area.

Historic Uses: The site was operated as a gas station and car wash since approximately 1970. Underground storage tanks associated with the site's operations were removed from the location

upon direction from the DEC in approximately 1999. Following the tank removal activity and discovery of significant gasoline contamination in the tank areas, a DEC cleanup was performed at the location. The initial spill response addressed the majority of gasoline contamination on-site. However the off-site limits were not defined and additional contamination was known to exist under the car wash structure. Two kerosene above ground storage tanks (ASTs) were also operated at the site, subsequent to the spill response project.

Site Geology and Hydrogeology: The general site topography dips from the north corner of the property at NYS Route 9 toward the southern corner of the property along Route 418 (also known as Richards Avenue). The elevation change across the site is approximately eight feet. The Schroon River is the nearest surface water resource to the property and is located approximately 325 feet south of the site. The Schron River flows from east to west locally and is classified as a NYSDEC Class C (T) water body. The Schroon River discharges into the Hudson River approximately two miles west of the site.

Previous studies at the property indicate that the site was underlain by a sand and cobble layer transitioning to a glacial till.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to residential use (which allows for restricted-residential use, commercial use and industrial use) as described in Part 375-1.8(g) were/was evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the investigation to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is included in the Tables for the media being evaluated in Exhibit A.

SECTION 5: ENFORCEMENT STATUS

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

The PRPs for this site may include the estate and heirs of the former site owner and operator Mr. Ed Cogan. The estate is currently engaged with the New York State Office of the Attorney General to settle past state expenditures undertaken during the spill response project through the Oil Spill Fund.

The Town of Warrensburg took temporary incidents of ownership in order for this project to proceed under the ERP program.

There are currently no ongoing enforcement actions. However, legal action may be initiated at a future date by the state to recover state response costs should PRPs be identified. The Town of Warrensburg will assist the state in its efforts by providing all information to the state which identifies PRPs. The Town of Warrensburg will also not enter into any agreement regarding response costs without the approval of the Department.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A Remedial Investigation (RI) has been conducted. The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The field activities and findings of the investigation are described in the RI Report.

The following general activities are conducted during an RI:

- Research of historical information,
- Geophysical survey to determine the lateral extent of wastes,
- Test pits, soil borings, and monitoring well installations,
- Sampling of waste, surface and subsurface soils, groundwater, and soil vapor,
- Sampling of surface water and sediment,
- Ecological and Human Health Exposure Assessments.

The analytical data collected on this site includes data for:

- groundwater
- soil
- soil vapor

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. The tables found in Exhibit A list the applicable SCG in the footnotes. For a full listing of all SCGs see: <http://www.dec.ny.gov/regulations/61794.html>

6.1.2: RI Results

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized in Exhibit A. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

TRICHLOROETHENE (TCE)	NAPHTHALENE
MTBE (METHYL-TERT-BUTYL ETHER)	XYLENE (MIXED)
TETRACHLOROETHENE	CHROMIUM
ETHYLBENZENE	TOLUENE

Based on the investigation results, comparison to the SCGs, and the potential public health and environmental exposure routes, certain media and areas of the site required remediation. These media were addressed by the IRM(s) described in Section 6.2. More complete information can be found in the RI Report and the IRM Construction Completion Report.

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Record of Decision.

The following IRM(s) has/have been completed at this site based on conditions observed during the RI.

Building demolition, tank closure and source soil removal.

Interim Remedial Measures were undertaken, first to provide site access and to remove the existing building and related infrastructure and later to remove limited source contaminated soils encountered associated with those infrastructure. The preliminary IRMs included building demolition with asbestos abatement, AST cleaning and closure and closure of the subsurface oil/water separator.

During the tank closure and site investigation work, gross petroleum soil contamination was discovered under the closed kerosene ASTs and the adjacent building. An IRM was instituted to address these impacts. Approximately 384 tons of petroleum contaminated soil was removed from this area during the IRM. Post-excavation soil sampling met unrestricted use standards at all sampling locations. Groundwater below this area also met standards and no chlorinated compounds were encountered in soil or groundwater in this area.

Removal of Storm Water Collection System

An IRM was completed to address contamination related to storm water collection and disposal (dry well) structures located at the rear of the site. The structures were found to contain a drain inlet coming from the vicinity of the adjacent dry cleaner's drum storage pad. Sampling and analysis revealed that the soil in the bottom of the dry well structure was impacted with tetrachloroethene at low levels. During the IRM, the inlet structure and dry well were removed and disposed, and; approximately 10 tons of contaminated soil was excavated and disposed of off-site. Post-excavation soil sampling met standards. Groundwater in this area was not impacted with any contaminants.

Septic Tank Removal

The final IRM assessed and removed the on-site concrete septic tank. Soil sampling results at this location did not detect any contaminants of concern.

Complete details of site IRMs can be found in the RI and IRM Completion Report.

6.3: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water.

Based upon the resources and pathways identified and the toxicity of the contaminants of ecological concern at this site, a Fish and Wildlife Resources Impact Analysis (FWRIA) was deemed not necessary for OU 01.

Soil: Petroleum related contaminants (m,p-xylenes, o-xylene, ethylbenzene and naphthalene) were detected under the former kerosene ASTs at concentrations well above unrestricted use soil cleanup objectives (SCOs). Subsequent to the soil excavation IRM described in Section 6.2, soil contaminant concentrations were less than unrestricted use SCO's.

Outside of the IRM areas, total xylene levels were detected only slightly above unrestricted use standards at a depth of 17-19 feet below grade at one on-site soil boring (SB-18) and at one off-site soil boring (SB-20) location. No other VOC or SVOC petroleum contaminants of concern were detected above unrestricted use levels at any other sampling location. No further remedial action for petroleum impacted soils is warranted.

Soil at the storm drain inlet structure and dry well that received drainage from the adjacent property was found to be impacted with tetrachloroethene at levels above unrestricted use standards. Following the IRM action described in Section 6.2, post-excavation sampling data met unrestricted use SCOs for chlorinated compounds. No chlorinated compounds were detected in soil anywhere else on site. No further remedial action for chlorinated compounds in soil is warranted.

Concentrations of inorganic metals in soil are consistent with regional background levels and no other contaminants of concern were detected on- or off-site.

Groundwater: With the exception of MTBE measured in two monitoring wells, one on-site and one off-site, there was no groundwater contamination found above applicable standards related to disposal activities at the site. MTBE was detected at 120 parts per billion (ppb) in a deep well on the up-gradient property edge. MTBE was also detected in a shallow off-site well at 90 ppb. The guidance level for MTBE is 10 ppb. It is unclear if the MTBE is related to past or adjacent site activities but given the moderate level of contamination and the use of public water in the area, the MTBE impacts do not warrant remedial action.

Sodium was detected above standards in eleven wells. Sodium levels ranged from 23 to 335 parts per million (ppm) while the standard is 20 ppm. However, this impact is likely associated with local road salt applications and is not considered a contaminant of concern.

Soil Vapor: Elevated soil vapor concentrations for PCE and TCE (692 and 259 micrograms per cubic meter respectively) were detected on-site in the vicinity of a subsurface box culvert structure. The presence of this contamination appears to be related to drainage from an off-site source. No further remedial action is warranted for this limited soil vapor contamination.

6.4: Summary of Human Exposure Pathways

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

People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. Because there is no on-site building, inhalation of contaminants in indoor air due to soil vapor intrusion does not represent a concern for the site in its current condition. However, the potential exists for the inhalation of contaminants due to soil vapor intrusion for any future on-site development.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

Groundwater

RAOs for Public Health Protection

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

RAOs for Environmental Protection

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

Soil

RAOs for Public Health Protection

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

RAOs for Environmental Protection

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

Soil Vapor

RAOs for Public Health Protection

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

SECTION 7: SUMMARY OF SELECTED REMEDY

Based on the results of the site investigations and IRMs undertaken as described above, the Department is proposing No Further Action as the remedy for the site. The Department believes that this remedy is protective of human health and the environment and satisfies the remedial objectives described above.

As described in Section 6.4 above, post IRM site conditions in impacted site media (soils, groundwater, and soil vapor) either meet applicable standards or do not otherwise warrant remedial action due to the absence of exposure routes and very limited, moderate exceedances of some standards. While limited MTBE impacts to groundwater remain, the municipal groundwater use restriction addresses this impact. Therefore, based on the soil achieving residential SCOs to fifteen feet below ground surface, an environmental easement or other use restrictions will not be required.

While no further actions are warranted, any future building at the site should incorporate sub-slab assessment and potential active depressurization, as appropriate, based on the soil vapor conditions encountered. In addition, site investigations indicate that this site is at risk of further groundwater or soil vapor contamination from activities at adjacent properties. All due consideration of these risks should be undertaken during future site development to ensure there are no routes of exposure at that time.

Exhibit A

Nature and Extent of Contamination

This section describes the findings of the Remedial Investigation for all environmental media that were evaluated. As described in Section 6.1.2, samples were collected from various environmental media to characterize the nature and extent of contamination.

For each medium, a table summarizes the findings of the investigation. The tables present the range of contamination found at the site in the media and compares the data with the applicable SCGs for the site. Only contaminants that had an exceedance of the SCGs are presented in this table.

The contaminants are arranged into 2 categories; volatile organic compounds (VOCs), and inorganics (metals and cyanide). For comparison purposes, the SCGs are provided for each medium that allows for unrestricted use. For soil, if applicable, the Restricted Use SCGs identified in Section 6.1.1 are also presented.

Waste/Source Areas

Wastes are defined in 6 NYCRR Part 375-1.2 (aw) and include solid, industrial and/or hazardous wastes. Source Areas are defined in 6 NYCRR Part 375 (au). Source areas are areas of concern at a site where substantial quantities of contaminants are found which can migrate and release significant levels of contaminants to another environmental medium. Waste and Source areas were identified at the site and include the Kerosene retail AST location and the storm drain inlet structure.

The Kerosene retail AST location was immediately adjacent to the car wash building as shown in Figure 2. Petroleum contamination was identified at this location after the building had been demolished and the ASTs had been removed during planned IRM work. Common petroleum contaminants including ethylbenzene and mixed xylenes were identified at levels above unrestricted use SCGs primarily in shallow soil. No groundwater contamination was identified in this location. Subsequently an IRM was undertaken to remove this source area (see Figure 3). The IRM project was successful at addressing the soil which extended underneath the former car wash building. Approximately 394 tons of contaminated soil was removed from this area during the IRM. Post-excavation sampling indicated no further petroleum contamination existed above unrestricted use SCGs in this area.

The only other area that could constitute a source area was the dry well inlet structure that received drainage from the adjacent property (Figure 3). Sediments in the bottom of the inlet structure contained tetrachloroethene, a VOC used in dry cleaning, above unrestricted use SCGs. An IRM was undertaken to over-excavate to remove the drain line, inlet structure, dry well, and surrounding soil. This IRM was successful and post-excavation sampling indicated no further VOC contamination existed above unrestricted use SCGs in this area.

The waste/source areas identified at the site were addressed by the IRM(s) described in Section 6.2.

Groundwater

Groundwater samples were collected from shallow and deep groundwater wells both on the site and off the site (see Figure 4) to assess the local groundwater condition. The deep groundwater wells were established above bedrock at depths to 90 feet. The results show that the shallow and deeper aquifers in this region are in communication and that contamination in both shallow and deep groundwater exceeds SCGs for VOCs and inorganics (metals). The groundwater flow direction is shown in Figure 5.

The area is served by public drinking water, although the adjacent business does employ a well to supply process water to its facility. Two VOCs were detected in wells tested for this project; MTBE and tetrachloroethene. MTBE is associated with gasoline contamination and was indentified in a deep on-site well and a shallow off-site well. There is no longer gasoline contamination on this site that may provide a source for deteriorating groundwater conditions beyond the conditions documented.

Tetrachloroethene was detected in one off-site monitoring well established for this project and has been documented in the neighboring property’s production well for a decade. Tetrachloroethene is not a contaminant that was derived from activities on the Econo Quick property. An on-going investigation into the source of the tetrachloroethene is presently underway.

Two inorganics were also detected in the groundwater investigation, sodium and manganese. Sodium was present above standards in all samples but is understood to be associated with the local use of road salt and is therefore not a contaminant derived from the Econo Quick site. Manganese was present in two wells above SCGs but it is a naturally occurring metal and viewed as indigenous to the area.

TABLE 1: Nature and Extent of Contamination – Groundwater

Detected Constituents	Concentration Range Detected (ppb) ^a	SCG ^b (ppb)	Frequency Exceeding SCG
VOCs			
Methyl tert-butyl ether	4.5 ^j c to 120	10	2 of 12 (1 on-site)
Tetrachloroethene	3.4 ^j to 5.7	5	1 of 12 (off-site)
Metals			
Sodium ^d	23,400 to 335,000	20,000	12 of 12
Manganese ^e	1.78 ^j to 7,180	300	3 of 12

a - ppb: parts per billion, which is equivalent to micrograms per liter, ug/L, in water.

b - SCG: Standard Criteria or Guidance - Ambient Water Quality Standards and Guidance Values (TOGs 1.1.1), 6 NYCRR Part 703, Surface water and Groundwater Quality Standards, and Part 5 of the New York State Sanitary Code (10 NYCRR Part 5).

c - j = Approximate value. Compound detected below the laboratory quantitation limit but above the method reporting limit.

d - Data do not indicate a sodium source at the site; sodium in groundwater is more likely from de-icing road salt and is not considered a site contaminant.

e - Indigenous elemental metal that is not considered a site contaminant.

While groundwater contaminants were detected during the investigation, none were attributed to current conditions documented at the Econo Quick property. On-going investigation projects at the two adjacent properties will continue to assess local groundwater in the future.

Soil

Subsurface soil samples were collected at various locations on and off of the site. Soil samples were collected at depths that ranged from 2 to 93 feet and were biased to locations of highest potential contamination. Samples were collected from soil borings, test pits and post-IRM excavations (see Figures 3 and 4). Subsequent to completion of the site IRMs, the results show that there are no source contaminant areas on the site. Petroleum related VOC impacts above the unrestricted use SCG were documented at a depth greater 17 feet at one on-site boring location and one off-site boring location. These impacts were well below the residential use SCG.

Chromium was detected in all soil samples tested above the unrestricted SCG, however it is a native mineral and present at levels consistent with native background and is therefore not considered a site-related contaminant.

Soils from approximately 80% of the operating portion of the site were excavated for both the 1999 spill project and the recent site IRMs. This entire area was replaced with virgin material from a local mine. There were no exposed soils on the remainder of the site, which primarily included a paved access drive from SR 9 into the operating portion of the site. The subsurface investigation program did involve establishing borings in these paved areas and in no case were contaminants evident in the near surface soil that suggested further testing was warranted in this soil zone. Biased soil samples at each of these boring locations did not detect contaminants (other than native chromium discussed above) above unrestricted use SCGs.

Table 2: Nature and Extent of Contamination - Soil

Detected Constituents	Concentration Range Detected (ppm) ^a	Unrestricted SCG ^b (ppm)	Frequency Exceeding Unrestricted SCG	Restricted Use SCG ^c (ppm)	Frequency Exceeding Restricted SCG
VOCs					
Total Xylenes	0.007j ^d to 0.42	0.26	2 of 35	100	0 of 35
Acetone	0.28j	0.05	1 of 35	100	0 of 35
Metals					
Chromium ^e	2.91 to 21.7	1	17 of 17	36	0 of 17

a - ppm: parts per million, which is equivalent to milligrams per kilogram, mg/kg, in soil;

b - SCG: Part 375-6.8(a), Unrestricted Soil Cleanup Objectives.

c - SCG: Part 375-6.8(b), Restricted Use Soil Cleanup Objectives for the Protection of Public Health for Residential Use.

d - j = Approximate value. Compound detected below the laboratory quantitation limit but above the method reporting limit.

e - with in the NYSDEC's background range.

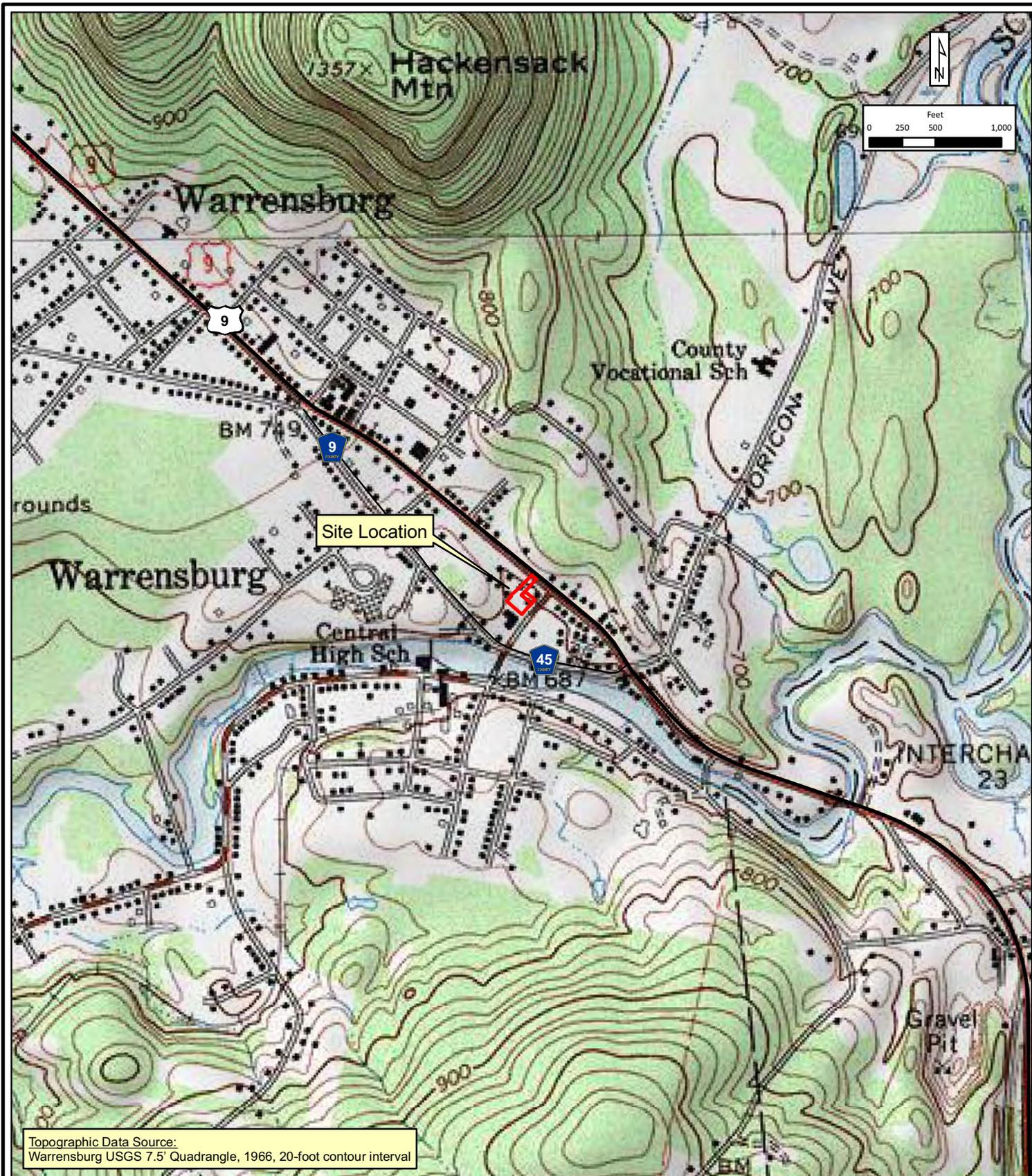
Source soil VOC contamination identified during the RI was addressed during the IRM described in Section 6.2. Residual VOC impacts are below residential use SCGs and greater than 17 feet below grade. Inorganic chromium detected in soil samples is considered a native mineral and is present at levels below the residential use SCG.

Soil Vapor

Soil vapor was evaluated at this site primarily as an investigation technique to ascertain if and where chlorinated VOCs, primarily tetrachloroethene (PCE) and trichloroethene (TCE), were present on or off of the site. This activity was undertaken because very limited data collected at the site prior to the spill response program remedial project had identified PCE in local groundwater.

Figure 6 shows the findings of the soil vapor investigation. The assessment of chlorinated VOCs in soil, groundwater and soil vapor concluded that the source of this impact in the area was off-site. No on-site groundwater was found to be contaminated with chlorinated VOCs. The only soil impacted with chlorinated VOCs on-site was in sediments in the drywell inlet structure. This conveyance also included a solid pipe line to the buried municipal box culvert infrastructure which supports a potential route for the contaminants to have migrated into the culvert and off-gas in this area. Elevated soil vapor levels of PCE and TCE were recorded near the box culvert, however the highest PCE level by an order of magnitude was recorded off-site.

The results of this investigation and the completion of IRMs indicate there is no on-site source for contaminants that are of concern for vapor intrusion. Additionally, the proposed future site use during the scope of this project was as municipal parking and therefore there is no vapor intrusion risk for the proposed use. Given residual levels of soil vapors present at the site and the risk posed by adjacent neighboring businesses, the Department has recommended that if any building is constructed on the property in the future, the building should have a vapor intrusion assessment undertaken and a sub slab depressurization system activated as warranted.



THE
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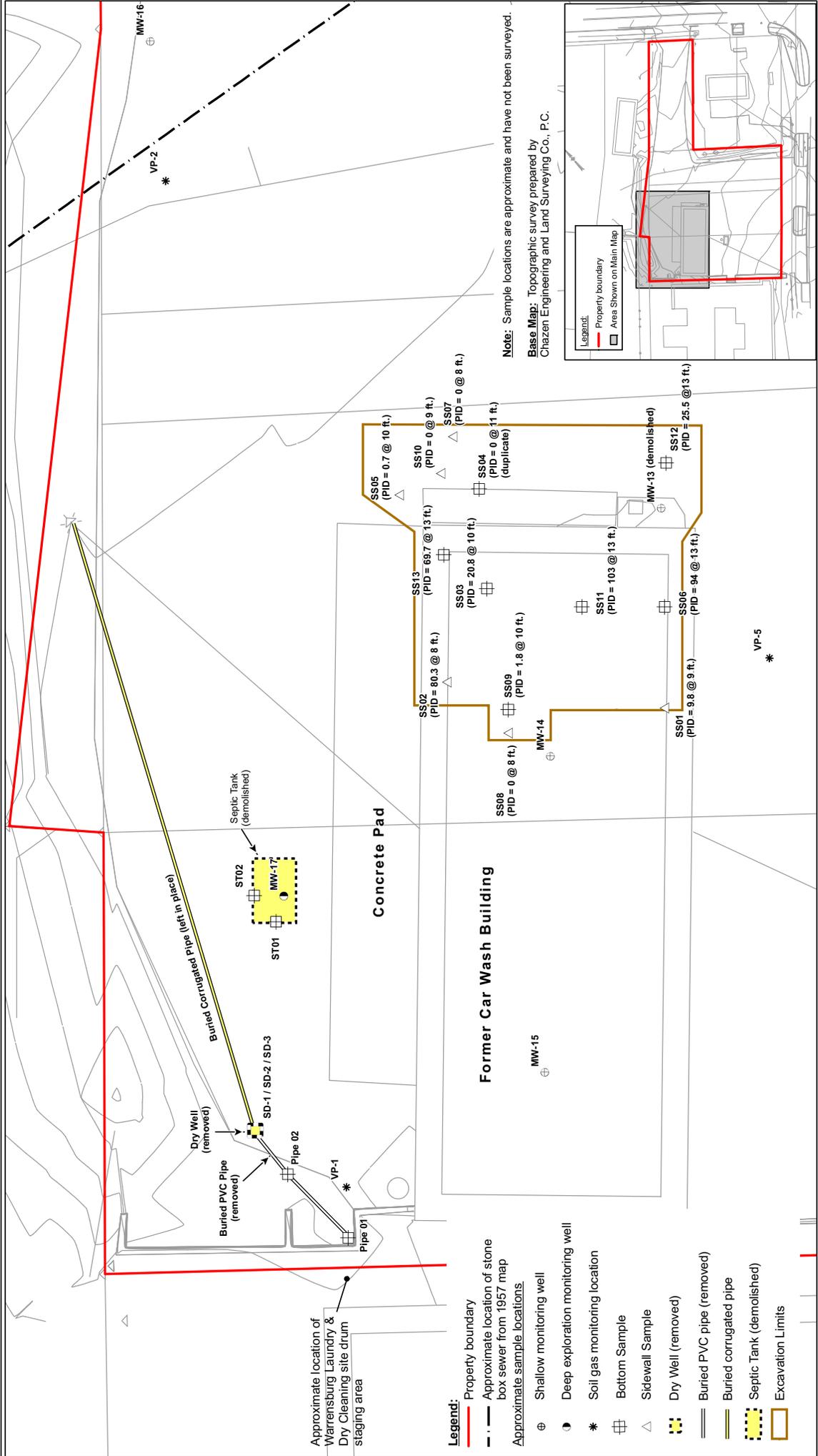
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Econoquick Gas & Car Wash

Site Location Map

9 Richards Avenue
Town of Warrensburg
Warren County, New York

Drawn:	CLC
Date:	04/08/2010
Scale:	1:12,000
Project:	90628.00
Figure:	1



Note: Sample locations are approximate and have not been surveyed.
Base Map: Topographic survey prepared by Chazen Engineering and Land Surveying Co., P.C.

Legend:
 - - - Property boundary
 - - - Area Shown on Main Map



Drawn:	CLC
Date:	04/28/2010
Scale:	1" = 10 feet
Project:	96255.00
Figure:	3

Econoquick Gas & Car Wash
IRM Dry Well, Septic Tank, Soil Excavation
Sample Location Map
 Town of Warrensburg
 Warren County, New York

North Arrow
 Feet
 0 2.5 5 10
 Map Document: P:\2010\04\28\96255\96255_SampleLocationMap.dwg
 4/28/10 11:13 AM

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- Legend:**
- - - Property boundary
 - - - Approximate location of stone box sewer from 1957 map
 - - - Approximate sample locations
 - ⊕ Shallow monitoring well
 - ⊙ Deep exploration monitoring well
 - * Soil gas monitoring location
 - ⊕ Bottom Sample
 - △ Sidewall Sample
 - Dry Well (removed)
 - ▬ Buried PVC pipe (removed)
 - ▬ Buried corrugated pipe
 - ▬ Septic Tank (demolished)
 - ▬ Excavation Limits

Approximate location of Warrensburg Laundry & Dry Cleaning site drum
 staging area
 Buried PVC Pipe (removed)
 Dry Well (removed)
 Buried Corrugated Pipe (left in place)
 Septic Tank (demolished)
 Concrete Pad
 Former Car Wash Building
 MW-15
 MW-14
 MW-13 (demolished)
 MW-17
 VP-1
 VP-2
 MW-16
 SS01 (PID = 9.8 @ 9 ft.)
 SS02 (PID = 80.3 @ 8 ft.)
 SS03 (PID = 20.8 @ 10 ft.)
 SS04 (duplicate)
 SS05 (PID = 0.7 @ 10 ft.)
 SS06 (PID = 94 @ 13 ft.)
 SS07 (PID = 0 @ 8 ft.)
 SS08 (PID = 0 @ 8 ft.)
 SS09 (PID = 1.8 @ 10 ft.)
 SS10 (PID = 0 @ 9 ft.)
 SS11 (PID = 103 @ 13 ft.)
 SS12 (PID = 25.5 @ 13 ft.)
 SS13 (PID = 69.7 @ 13 ft.)
 SD-1 / SD-2 / SD-3
 Pipe 01
 Pipe 02

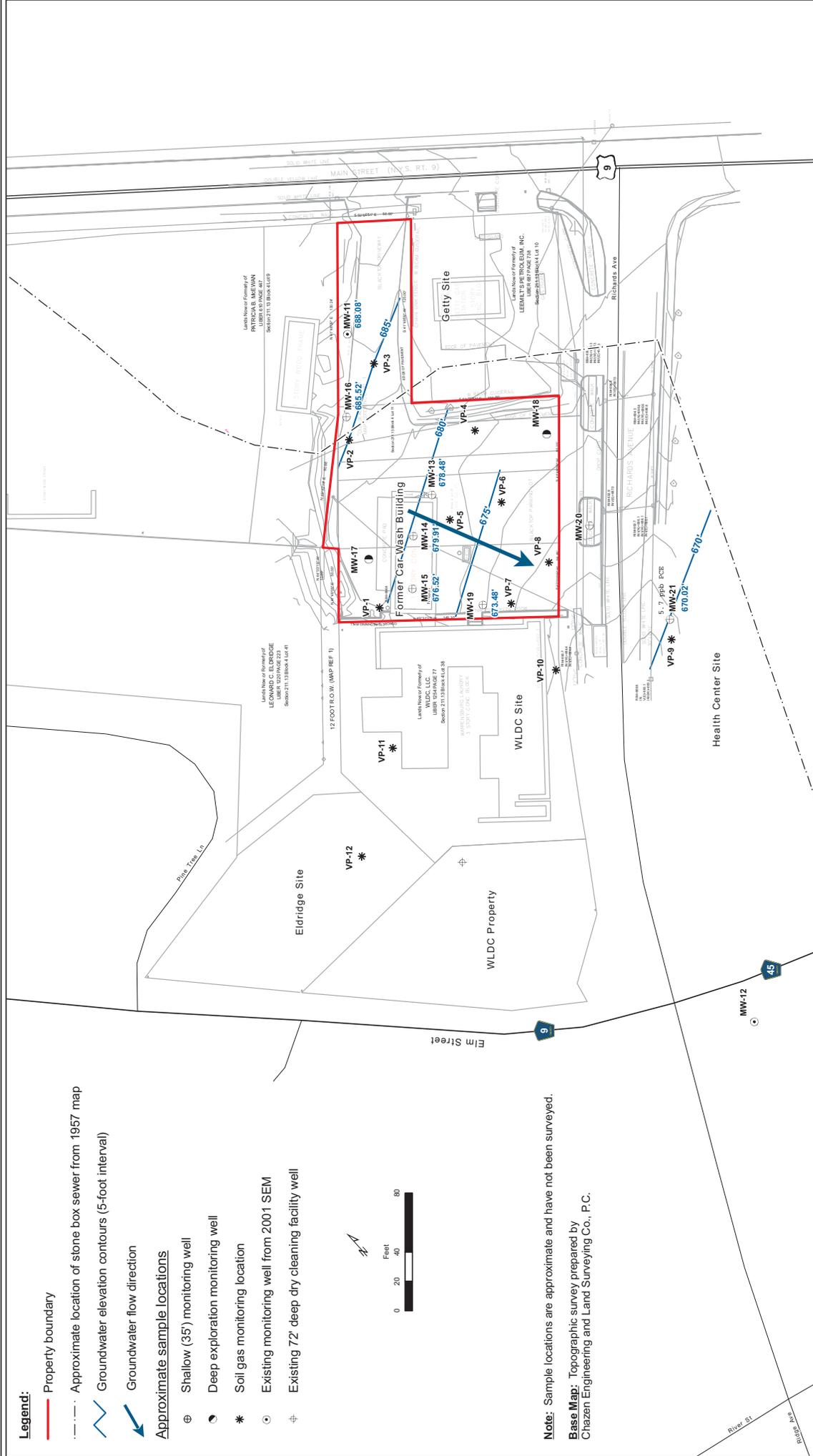
Legend:

- Property boundary
- Approximate location of stone box sewer from 1957 map
- Groundwater elevation contours (5-foot interval)
- Groundwater flow direction
- Approximate sample locations**
- Shallow (35') monitoring well
- Deep exploration monitoring well
- Soil gas monitoring location
- Existing monitoring well from 2001 SEM
- Existing 72' deep dry cleaning facility well



Note: Sample locations are approximate and have not been surveyed.

Base Map: Topographic survey prepared by Chazen Engineering and Land Surveying Co., P.C.



Owner:	CLC
Date:	04/08/2010
Scale:	1/2" = 1/2" = 80 feet
Project:	96255.00
Figure:	5

Econoquick Gas & Car Wash
Groundwater Gradient Map
 Town of Warrensburg
 Warren County, New York

Map Document: R:\96001\960010005_0\GIS\map\96055_GroundwaterGradientMap_V117.DWG
 4/8/2010 - 10:29:04

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Legend:

- Property boundary
- - - Approximate location of stone box sewer from 1957 map
- Buried corrugated pipe
- Approximate sample locations
- Shallow (35') monitoring well
- Deep exploration monitoring well
- * Soil gas monitoring location
- Existing monitoring location
- Existing monitoring well from 2001 SEM
- ⊕ Existing 72" deep dry cleaning facility well

Legend:

- Shallow (35') monitoring well
- Deep exploration monitoring well
- * Soil gas monitoring location
- Existing monitoring location
- Existing monitoring well from 2001 SEM
- ⊕ Existing 72" deep dry cleaning facility well

Legend:

- Shallow (35') monitoring well
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Legend:

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Legend:

- Shallow (35') monitoring well
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- Existing monitoring location
- Existing monitoring well from 2001 SEM
- ⊕ Existing 72" deep dry cleaning facility well

Legend:

- Shallow (35') monitoring well
- Deep exploration monitoring well
- * Soil gas monitoring location
- Existing monitoring location
- Existing monitoring well from 2001 SEM
- ⊕ Existing 72" deep dry cleaning facility well

Analyte	VP-1
2-Butanone (MEK)	8,729 D
Acetone	5,596 D
Benzene	3,51 J
Carbon Disulfide	9,34 J
Ethyl Benzene	6,95 J
Heptane	23,77
m/p-Xylene	15,21 J
o-Xylene	7,66 J
Styrene	22,43
tert-Butyl alcohol	14,24
Tetrachloroethene	133,41
Toluene	20,96
Trichloroethene	

Analyte	VP-2
2-Butanone (MEK)	12,245 DJ
Acetone	16,419 DJ
Benzene	6,07 J
Carbon Disulfide	10,9 J
Ethyl Benzene	11,29 J
Heptane	44,26
m/p-Xylene	25,63
o-Xylene	6,07 J
Styrene	14,05 J
tert-Butyl alcohol	63,66
Tetrachloroethene	691,68
Toluene	261,91
Trichloroethene	17,73

Analyte	VP-3
2-Butanone (MEK)	28,902 DJ
Acetone	41,533 DJ
Benzene	3,89 J
Carbon Disulfide	8,51 J
Ethyl Benzene	10,32 J
Heptane	49,59
m/p-Xylene	23,02
o-Xylene	11,46 J
Styrene	7,38 J
tert-Butyl alcohol	12,77 J
Toluene	43,65
Trichloroethene	209,91 J
	2,891

Analyte	VP-4
2-Butanone (MEK)	2,853 J
Acetone	2,41 J
Benzene	15,454 DJ
Carbon Disulfide	2,41 J
Ethyl Benzene	3,44 J
Heptane	16,590 DJ
m/p-Xylene	3,42 J
o-Xylene	6,29
Styrene	7,12 J
tert-Butyl alcohol	10,86 J
Toluene	10,64 J
Trichloroethene	44,56
	7,46 J
	212,92 J
	27,95 J

Analyte	VP-5
2-Butanone (MEK)	15,711
Acetone	6,677 DJ
Benzene	10,32 J
Carbon Disulfide	12,371 DJ
Ethyl Benzene	3,51 J
Heptane	9,99 J
m/p-Xylene	16,18 J
o-Xylene	61,24
Styrene	100,62
tert-Butyl alcohol	3,96 J
Toluene	258,5
Trichloroethene	

Analyte	VP-6
2-Butanone (MEK)	2,853 J
Acetone	2,41 J
Benzene	15,454 DJ
Carbon Disulfide	2,41 J
Ethyl Benzene	3,44 J
Heptane	16,590 DJ
m/p-Xylene	3,42 J
o-Xylene	6,29
Styrene	7,12 J
tert-Butyl alcohol	10,86 J
Toluene	10,64 J
Trichloroethene	44,56
	7,46 J
	212,92 J
	27,95 J

Analyte	VP-7
2-Butanone (MEK)	2,853 J
Acetone	2,41 J
Benzene	15,454 DJ
Carbon Disulfide	2,41 J
Ethyl Benzene	3,44 J
Heptane	16,590 DJ
m/p-Xylene	3,42 J
o-Xylene	6,29
Styrene	7,12 J
tert-Butyl alcohol	10,86 J
Toluene	10,64 J
Trichloroethene	44,56
	7,46 J
	212,92 J
	27,95 J

Analyte	VP-8
2-Butanone (MEK)	2,853 J
Acetone	2,41 J
Benzene	15,454 DJ
Carbon Disulfide	2,41 J
Ethyl Benzene	3,44 J
Heptane	16,590 DJ
m/p-Xylene	3,42 J
o-Xylene	6,29
Styrene	7,12 J
tert-Butyl alcohol	10,86 J
Toluene	10,64 J
Trichloroethene	44,56
	7,46 J
	212,92 J
	27,95 J

Analyte	VP-9
2-Butanone (MEK)	4,77
Acetone	3,22
Benzene	2,42
Carbon Disulfide	2,9
Ethyl Benzene	3,65
Heptane	119 DJ
m/p-Xylene	1,69
o-Xylene	0,72 J
Styrene	0,38
tert-Butyl alcohol	1,88 J
Toluene	5,21
Trichloroethene	5,20 J
	2,19 J
	29,75
	0,96 J
	1,18 J
	8,55
	3,45
	54,39
	23,06
	0,37
	1,07 J

Analyte	VP-10
2-Butanone (MEK)	0,60 J
Acetone	15,29 J
Benzene	4,11 J
Carbon Disulfide	3,65 J
Ethyl Benzene	6,15 J
Heptane	2,62 J
m/p-Xylene	1,53 J
o-Xylene	4,62 J
Styrene	14,90 J
tert-Butyl alcohol	2,77 J
Toluene	3,59 J
Trichloroethene	29,43 J
	2,02 J

Analyte	VP-11
2-Butanone (MEK)	0,46 J
Acetone	13,96 J
Benzene	4,97 J
Carbon Disulfide	4,20 J
Ethyl Benzene	3,43 J
Heptane	34,83 J
m/p-Xylene	6,93 J
o-Xylene	3,36 J
Styrene	2,886 DJ
tert-Butyl alcohol	2,36 J
Toluene	1,74 J
Trichloroethene	2,89 J
	486 J
	6,78 J
	9,02 J
	58,59 J
	0,47 J
	4,62 J
	14,90 J
	2,77 J
	3,59 J
	29,43 J
	2,02 J

Analyte	VP-12
2-Butanone (MEK)	8,50 J
Acetone	3,29 J
Benzene	2,10 J
Carbon Disulfide	3,50 J
Ethyl Benzene	12,48 J
Heptane	4,47 J
m/p-Xylene	4,34 J
o-Xylene	1,017 DJ
Styrene	1,23 J
tert-Butyl alcohol	2,21 J
Toluene	0,31 J
Trichloroethene	0,60 J
	0,89 J
	5,89 J
	39,96 J
	2,47 J
	10,55 J
	3,06 J
	29,24 J
	2,02 J

Analyte	VP-13
2-Butanone (MEK)	12,245 DJ
Acetone	16,419 DJ
Benzene	6,07 J
Carbon Disulfide	10,9 J
Ethyl Benzene	11,29 J
Heptane	44,26
m/p-Xylene	25,63
o-Xylene	6,07 J
Styrene	14,05 J
tert-Butyl alcohol	63,66
Tetrachloroethene	691,68
Toluene	261,91
Trichloroethene	17,73

Analyte	VP-14
2-Butanone (MEK)	28,902 DJ
Acetone	41,533 DJ
Benzene	3,89 J
Carbon Disulfide	8,51 J
Ethyl Benzene	10,32 J
Heptane	49,59
m/p-Xylene	23,02
o-Xylene	11,46 J
Styrene	7,38 J
tert-Butyl alcohol	12,77 J
Toluene	43,65
Trichloroethene	209,91 J
	2,891

Analyte	VP-15
2-Butanone (MEK)	2,853 J
Acetone	2,41 J
Benzene	15,454 DJ
Carbon Disulfide	2,41 J
Ethyl Benzene	3,44 J
Heptane	16,590 DJ
m/p-Xylene	3,42 J
o-Xylene	6,29
Styrene	7,12 J
tert-Butyl alcohol	10,86 J
Toluene	10,64 J
Trichloroethene	44,56
	7,46 J
	212,92 J
	27,95 J

Analyte	VP-16
2-Butanone (MEK)	2,853 J
Acetone	2,41 J
Benzene	15,454 DJ
Carbon Disulfide	2,41 J
Ethyl Benzene	3,44 J
Heptane	16,590 DJ
m/p-Xylene	3,42 J
o-Xylene	6,29
Styrene	7,12 J
tert-Butyl alcohol	10,86 J
Toluene	10,64 J
Trichloroethene	44,56
	7,46 J
	212,92 J
	27,95 J

Analyte	VP-17
2-Butanone (MEK)	2,853 J
Acetone	2,41 J
Benzene	15,454 DJ
Carbon Disulfide	2,41 J
Ethyl Benzene	3,44 J
Heptane	16,590 DJ
m/p-Xylene	3,42 J
o-Xylene	6,29
Styrene	7,12 J
tert-Butyl alcohol	10,86 J
Toluene	10,64 J
Trichloroethene	44,56
	7,46 J
	212,92 J
	27,95 J

Analyte	VP-18
2-Butanone (MEK)	2,853 J
Acetone	2,41 J
Benzene	15,454 DJ
Carbon Disulfide	2,41 J
Ethyl Benzene	3,44 J
Heptane	16,590 DJ
m/p-Xylene	3,42 J
o-Xylene	6,29
Styrene	7,12 J
tert-Butyl alcohol	10,86 J
Toluene	10,64 J
Trichloroethene	44,56
	7,46 J
	212,92 J
	27,95 J

Analyte	VP-19
2-Butanone (MEK)	4,77
Acetone	3,22
Benzene	2,42
Carbon Disulfide	2,9
Ethyl Benzene	3,65
Heptane	119 DJ
m/p-Xylene	1,69
o-Xylene	0,72 J
Styrene	0,38
tert-Butyl alcohol	1,88 J
Toluene	5,21
Trichloroethene	5,20 J
	2,19 J
	29,75
	0,96 J
	1,18 J
	8,55
	3,45
	54,39
	23,06
	0,37
	1,07 J

Analyte	VP-20
2-Butanone (MEK)	0,60 J
Acetone	15,29 J
Benzene	4,11 J
Carbon Disulfide	3,65 J
Ethyl Benzene	6,15 J
Heptane	2,62 J
m/p-Xylene	1,53 J
o-Xylene	4,62 J
Styrene	14,90 J
tert-Butyl alcohol	2,77 J
Toluene	3,59 J
Trichloroethene	29,43 J
	2,02 J

Analyte	VP-21
2-Butanone (MEK)	0,46 J
Acetone	13,96 J
Benzene	4,97 J
Carbon Disulfide	4,20 J
Ethyl Benzene	3,43 J
Heptane	34,83 J
m/p-Xylene	6,93 J
o-Xylene	3,36 J
Styrene	2,886 DJ
tert-Butyl alcohol	2,36 J
Toluene	1,74 J
Trichloroethene	2,89 J
	486 J
	6,78 J
	9,02 J
	58,59 J
	0,47 J
	4,62 J
	14,90 J
	2,77 J
	3,59 J
	29,43 J
	2,02 J

Analyte	VP-22
2-Butanone (MEK)	8,50 J
Acetone	3,29 J
Benzene	2,10 J
Carbon Disulfide	3,50 J
Ethyl Benzene	12,48 J
Heptane	4,47 J
m/p-Xylene	4,34 J
o-Xylene	1,017 DJ
Styrene	1,23 J
tert-Butyl alcohol	2,21 J
Toluene	0,31 J
Trichloroethene	0,60 J
	0,89 J
	5,89 J
	39,96 J
	2,47 J
	10,55 J
	3,06 J
	29,24 J
	2,02 J

Analyte	VP-23
2-Butanone (MEK)	28,902 DJ
Acetone	41,533 DJ
Benzene	3,89 J
Carbon Disulfide	8,51 J
Ethyl Benzene	10,32 J
Heptane	49,59
m/p-Xylene	23,02
o-Xylene	11,46 J
Styrene	7,38 J
tert-Butyl alcohol	12,77 J
Toluene	43,65
Trichloroethene	209,91 J
	2,891

Analyte	VP-24
2-Butanone (MEK)	2,853 J
Acetone	2,41 J
Benzene	15,454 DJ
Carbon Disulfide	2,41 J
Ethyl Benzene	3,44 J
Heptane	16,590 DJ
m/p-Xylene	3,42 J
o-Xylene	6,29
Styrene	7,12 J
tert-Butyl alcohol	10,86 J
Toluene	10,64 J
Trichloroethene	44,56
	7,46 J
	212,92 J
	27,95 J

Analyte	VP-25
2-Butanone (MEK)	2,853 J
Acetone	2,41 J
Benzene	15,454 DJ
Carbon Disulfide	2,41 J
Ethyl Benzene	3,44 J
Heptane	16,590 DJ
m/p-Xylene	3,42 J
o-Xylene	6,29
Styrene	7,12 J
tert-Butyl alcohol	10,86 J
Toluene	10,64 J
Trichloroethene	44,56
	7,46 J
	212,92 J
	27,95 J

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

**Econo Quick Gas & Car Wash
Environmental Restoration Project
Warrensburg, Warren County, New York
Site No. E557021**

The Proposed Remedial Action Plan (PRAP) for the Econo Quick site, was prepared by the New York State Department of Environmental Conservation (the Department) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on January 30, 2012. Subsequent to the completion of Interim Remedial Measures, the PRAP proposed No Further Action at the Econo Quick site .

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

A public availability session was held on February 21, 2012. The session provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. The public comment period for the PRAP ended on March 14, 2012.

There were no public comments received for the Econo Quick site.

APPENDIX B

Administrative Record

Administrative Record

**Econo Quick Gas & Car Wash
Environmental Restoration Project
Warrensburg, Warren County, New York
Site No. E557021**

Proposed Remedial Action Plan for the Econo Quick site, dated January, 2011, prepared by the Department.

1. The Department and the Town of Warrensburg entered into a State Assistance Contract, Contract No. C303326, March 27, 2007.

The additional documents used as the basis of the Record of Decision in chronological order are listed below. Note that the IRM work plan and the IRM completion report are included in each accordingly.

1. “Remedial Investigation & Alternatives Analysis Work Plan”, January, 2008, prepared by Chazen Companies.
2. “Final Remedial Investigation Report”, August, 2011, prepared by Chazen Companies.