RECORD OF DECISION

Robinson's Garage Property
Environmental Restoration Project
Redwood, Jefferson County
Site No. E623024
March 2016

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

DECLARATION STATEMENT - RECORD OF DECISION

Robinson's Garage Property
Environmental Restoration Project
Redwood, Jefferson County
Site No. E623024
March 2016

Statement of Purpose and Basis

This document presents the remedy for the Robinson's Garage 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 Robinson's Garage 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 29, 2016
Date

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

RECORD OF DECISION

Robinson's Garage Property
Redwood, Jefferson County
Site No. E623024
March 2016

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:

Town of Alexandria
Attn: Jessy Hudon
46372 County Route 1
Alexandria Bay, NY 13607
Phone: 315-482-9519 extension 1

A public meeting was also conducted. At the meeting, the findings of the remedial investigation (RI) and the alternatives analyses (AA) were presented along with a summary of the proposed remedy. After the presentation, a question-and-answer period was held, during which verbal or written comments were accepted on the proposed remedy.

Comments on the remedy received during the comment period are summarized and addressed in the responsiveness summary section of the ROD.

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 Robinson’s Garage Property is located at 43816 State Route 37 in the Hamlet of Redwood, Town of Alexandria, Jefferson County. The site is approximately 0.3 acre in size and is surrounded by a mix of residential and commercial properties.

Site Features: The site is currently devoid of any structures. In 2009, the Town of Alexandria demolished and removed the on-site structure. Historically, a retail gas station and repair shop were located on-site. The site is relatively flat and slopes toward the east. A freshwater wetland is located approximately 300 feet to the east of the site. Butterfield Lake is located approximately 2,500 feet to the east and Mud Lake is located approximately 2,000 feet to the south west of the site.

Current Zoning/Use: The site is currently inactive, and is zoned for commercial use. The surrounding parcels are currently used for a combination of residential and commercial uses. The nearest residence is approximately 100 feet to the north.

Past Use of the Site: Until the 1950s, the property served as a private residence. In the late 1950s or early 1960s the site was converted to a commercial gas station and convenience store. In the 1980s the site became the Robinson's Small Engine repair shop. The site was operated as an automobile repair shop from 2000 until 2003. The site has remained vacant and unused since then.

In 1999 Spill 9914038 was reported at this site as a result of leaking underground petroleum storage tanks. In 2004/2005 the Department removed three underground storage tanks (USTs) and petroleum contaminated soil from the site. Excavated soil was disposed of at a permitted facility. Contaminated soil extended underneath the building and could not be removed at that time. Spill 9914038 was closed on May 17, 2005.

Site Geology and Hydrology: The overburden is comprised of mainly fill, with a depth to bedrock ranging from 3.5 to 6 feet below grade. Groundwater was not encountered in the overburden, but based on historical files and the presence of several abandoned drinking water wells, groundwater can be found in shallow bedrock. Groundwater flow is anticipated to be toward the east in the direction of the wetland and Butterfield Lake.

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.

No PRPs have been documented to date.

Since no viable PRPs have been identified, 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. Town of Alexandria will assist the state in its efforts by providing all information to the state which identifies PRPs. Town of Alexandria 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:

- soil

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:

tetraethyl lead	chromium
xylene (mixed)	benzo(b)fluoranthene
n-propylbenzene	benzo[k]fluoranthene
naphthalene	chrysene
ethylbenzene	benzo(a)pyrene
1,3,5-trimethylbenzene	benzo(a)anthracene
1,2,4-trimethylbenzene	arsenic
lead	acetone

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

On-site structures were demolished in December 2009. Prior to demolition an asbestos survey was completed. The asbestos survey identified joint compound, floor tiles, window glazing, roofing, siding, and various roof sealants that met the definition of asbestos containing material (ACM). All ACM was removed from the building and disposed of at a permitted facility.

After all ACM was removed the remaining structures were razed and the building slab removed. Portions of the concrete slab and footers were used to backfill the basement under the former residence. Additional fill was imported to the site to bring it to grade, and was seeded to prevent erosion.

Soil Removal

Soil was excavated in two phases as part of the IRM. The first excavation was a large area underneath the former building foundation. The excavation extended to bedrock. Approximately 79 tons of contaminated soil were removed and sent for off-site disposal. At the limits of the excavation no staining, odor, or other signs of grossly contaminated soil were

observed. Confirmation samples were taken at five locations around the perimeter at a depth of 6 inches below grade. Bottom samples were not taken due to bedrock being encountered at the base of the excavation. The excavation was backfilled with clean gravel.

The second phase of soil excavation focused on surface soils in the eastern fill embankment. These excavations removed surface soils to a depth of approximately 12 inches. Approximately 50 tons of soil was removed at this time. Confirmation samples were taken from excavation sidewalls and bottoms at the frequency specified in DER-10: Technical Guidance for Site Investigation and Remediation. A total of thirteen samples were collected and analyzed for SVOCs and metals. Following this excavation the site was re-graded.

All post-excavation soil sample results were below residential soil cleanup objectives (SCOs), with minor exceptions.

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.

Nature and Extent of Contamination:

Soil:

Soil samples collected during the remedial investigation in December 2012 were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals. Samples collected during the remedial investigation in November 2013 were analyzed for SVOCs and metals.

Confirmation sampling following the soil removal actions identified one soil sample that slightly exceeded the residential SCO of 1.0 ppm for benzo(b)fluroanthene (1.06 ppm) and one sample that exceeded the residential SCO for chrysene of 1.0 ppm (1.33 ppm). Confirmation sampling also identified one soil sample that exceeded the residential SCO of 16.0 ppm for arsenic (18.8 ppm). The sample that exceeded the SCO for arsenic is located 4.5 feet below grade. None of the soil samples exceeded the residential SCOs for VOCs and none of the samples collected exceeded the protection of groundwater SCOs.

Groundwater:

Groundwater was not encountered in the overburden. Since over twenty petroleum spills had been reported in the hamlet and over one-hundred residential drinking water wells were contaminated, a water district was established and all homes in the hamlet were placed on

municipal water in 2005. Department information regarding spill 9914038 suggests that this site may have contributed to the area-wide groundwater contamination. Because widespread petroleum groundwater contamination is known to exist, groundwater in bedrock was not characterized. The hamlet is connected to the Village of Alexandria public water supply, and a municipal groundwater use restriction is in place.

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.*

Since soil removal actions have been completed to remove all contaminated soil from the site, contact with contaminated soil is not expected. Groundwater was not encountered but area wide groundwater contamination exists. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination.

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.

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.

SECTION 7: SUMMARY OF SELECTED REMEDY

Based on the results of the investigations at the site, the IRMs that have been performed, and the evaluation presented here, the Department is proposing No Further Action as the remedy for the site. The completed IRMs for soil contamination met the requirements for a residential use cleanup and do not require additional remedial action, including any institutional or engineering controls. Groundwater was not encountered in the overburden, however, due to widespread local groundwater contamination the area is connected to a public water supply and a local code that prohibits potable use of groundwater will be relied upon to prevent exposures to any groundwater contamination. The Department believes that this remedy is protective of human health and the environment and satisfies the remediation objectives described in Section 6.5.

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, samples were collected from various environmental media to characterize the nature and extent of contamination.

For each medium for which contamination was identified, 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. The contaminants are arranged into two categories: semi-volatile organic compounds (SVOCs) 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 4 and Section 6.1.1 are also presented.

Soil

Soil was excavated in two phases as part of the IRM. The first excavation was a large area underneath the former building foundation (Figure 2). The excavation extended to bedrock. Approximately 79 tons of contaminated soil were removed and sent for off-site disposal. At the limits of the excavation no staining, odor, or other signs of grossly contaminated soil were observed. Confirmation samples were taken at five locations around the perimeter at a depth of 6 inches below grade. Bottom samples were not taken due to bedrock being encountered at the base of the excavation.

The second phase of soil excavation focused on surface soils in the eastern fill embankment (Figure 3). These excavations removed surface soils to a depth of approximately 12 inches. Approximately 50 tons of soil was removed at this time. Confirmation samples were taken from excavation sidewalls and bottoms at the frequency specified in *DER-10: Technical Guidance for Site Investigation and Remediation*. A total of thirteen samples were collected and analyzed for SVOCs and metals.

The analytical results for these confirmation soil samples are shown in Table 1.

Table 1 – Post IRM Confirmation Sampling Results

Compound	Concentration Range Detected (ppm)[a]	Unrestricted SCG[b] (ppm)	Frequency Exceeding Unrestricted SCG	Lower of Residential / Protection of GW Use SCG[c] (ppm)	Frequency Exceeding Residential / Protection of GW SCG
VOCs					
Xylene (total)	ND - 1.38	0.26	1 out of 5	1.60	0 out of 5
SVOCs					
Benzo(b)fluoranthene	ND - 1.06	1	1 out of 18	1	1 out of 18
Benzo(k)fluoranthene	ND - 0.877	0.8	1 out of 18	1	0 out of 18
Chrysene	ND - 1.33	1	1 out of 18	1	1 out of 18
Inorganics					
Arsenic	1.9 - 18.8	13	1 out of 18	16	1 out of 18
Lead	4.9 - 260	63	12 out of 18	400	0 out of 18
Mercury (total)	ND - 0.32	0.18	3 out of 18	0.73	0 out of 18
Zinc	12.4 - 240	109	9 out of 18	2200	0 out of 18

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), The Lower of the Restricted Use Soil Cleanup Objectives for the Protection of Public Health for Residential Use or the Protection of Groundwater Soil Cleanup Objectives, unless otherwise noted.

The results of the confirmation sampling indicate that one location exceeded the unrestricted SCO for VOCs, one location exceeded the unrestricted SCO for SVOCs, and several locations exceed the unrestricted SCOs for metals. Arsenic exceeds the residential SCO of 16 ppm at only one location (EXC-04) with a concentration of 18.8 ppm. Benzo (b) fluoranthene and chrysene also exceeded their residential SCOs of 1 ppm at one location (S6) with concentrations of 1.06 ppm and 1.33 ppm respectively. The locations where the residential SCOs for arsenic and PAHs were exceeded are infrequent and considered minor when compared to their respective SCOs.

The primary contaminants are VOCs, SVOCs, arsenic, lead, and zinc associated with petroleum used during the operation of the former small engine repair shop and gas station. As shown in Figures 4 and 5, the IRM completed at the site has removed this contamination to levels below the residential SCOs with the exception of two locations where they were slightly exceeded. It is not anticipated that the SVOCs and metals that remain will migrate from the soil. Groundwater is not used for drinking water and was not observed on-site.

Based on the findings of the Remedial Investigation, the presence of petroleum related VOCs, SVOCs, arsenic, lead, and other metals has resulted in the contamination of soil. The site contaminants identified in soil which are considered to be the primary contaminants of concern are, VOCs, polycyclic aromatic hydrocarbons (PAHs) and arsenic. The IRMs completed at the site have reduced levels of this contaminants of concern to allow for residential use of the site.

N
W E
S

0 20 40
Feet

Figure1

Site Location

Robinson's Garage
Town of Alexandria, Jefferson County
Site No. E623024

NEW YORK
STATE OF
OPPORTUNITY

Figure 2: December 2012 Excavation (historical features shown for reference)

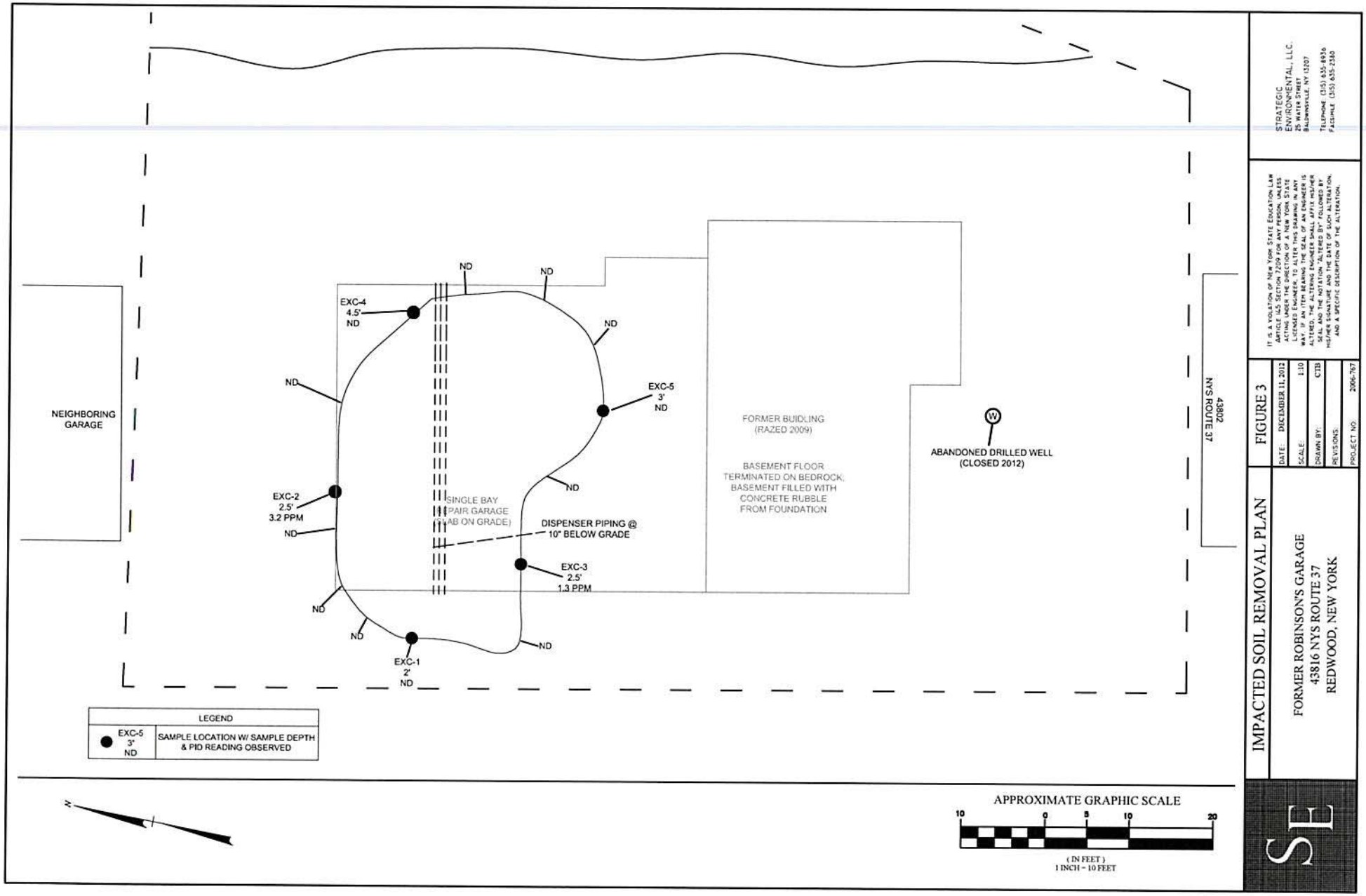


Figure 3: November 2013 Excavations (historical features shown for reference)

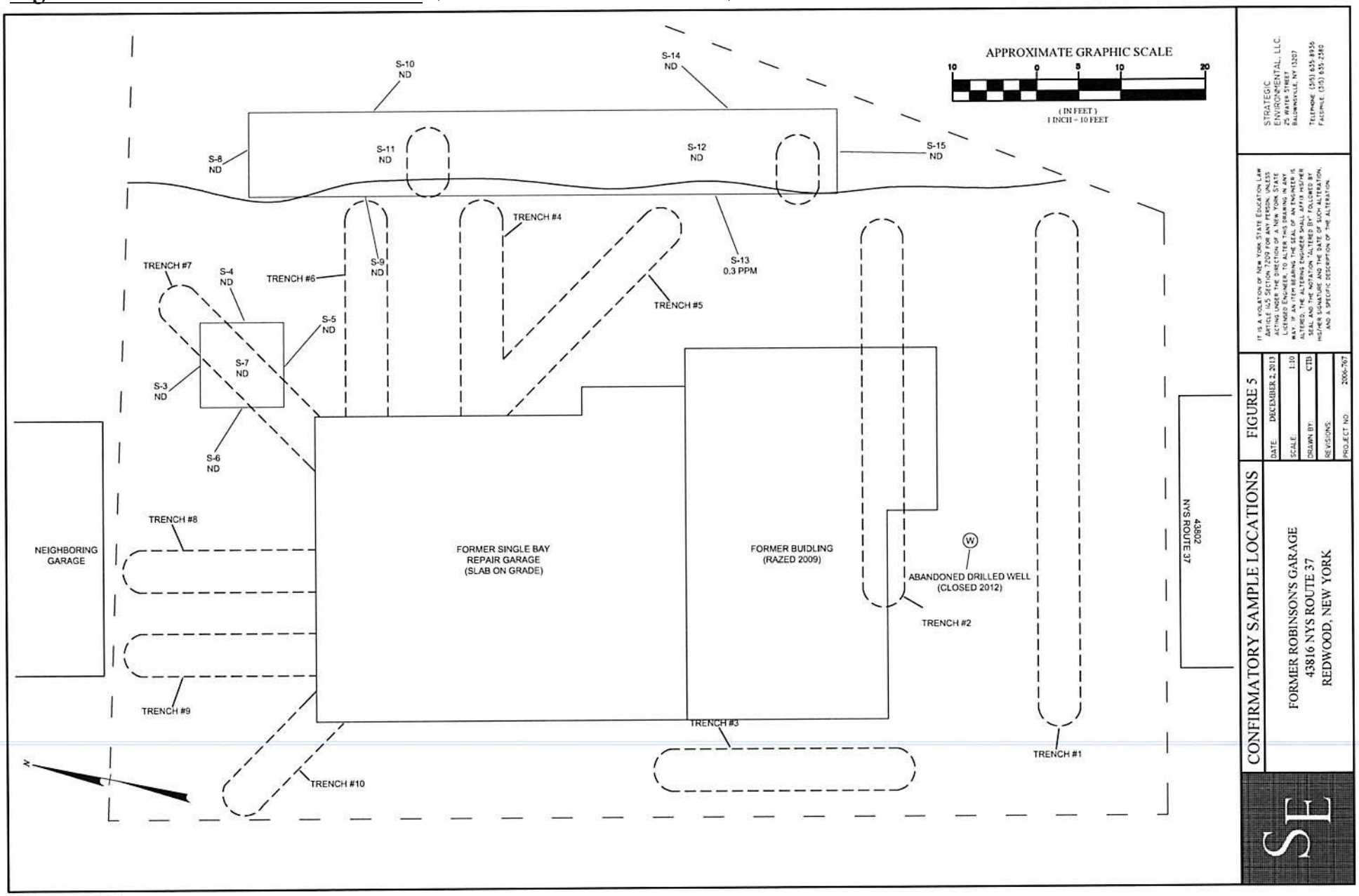


Figure 4: Metal Confirmation Sampling Results (historical features shown for reference)

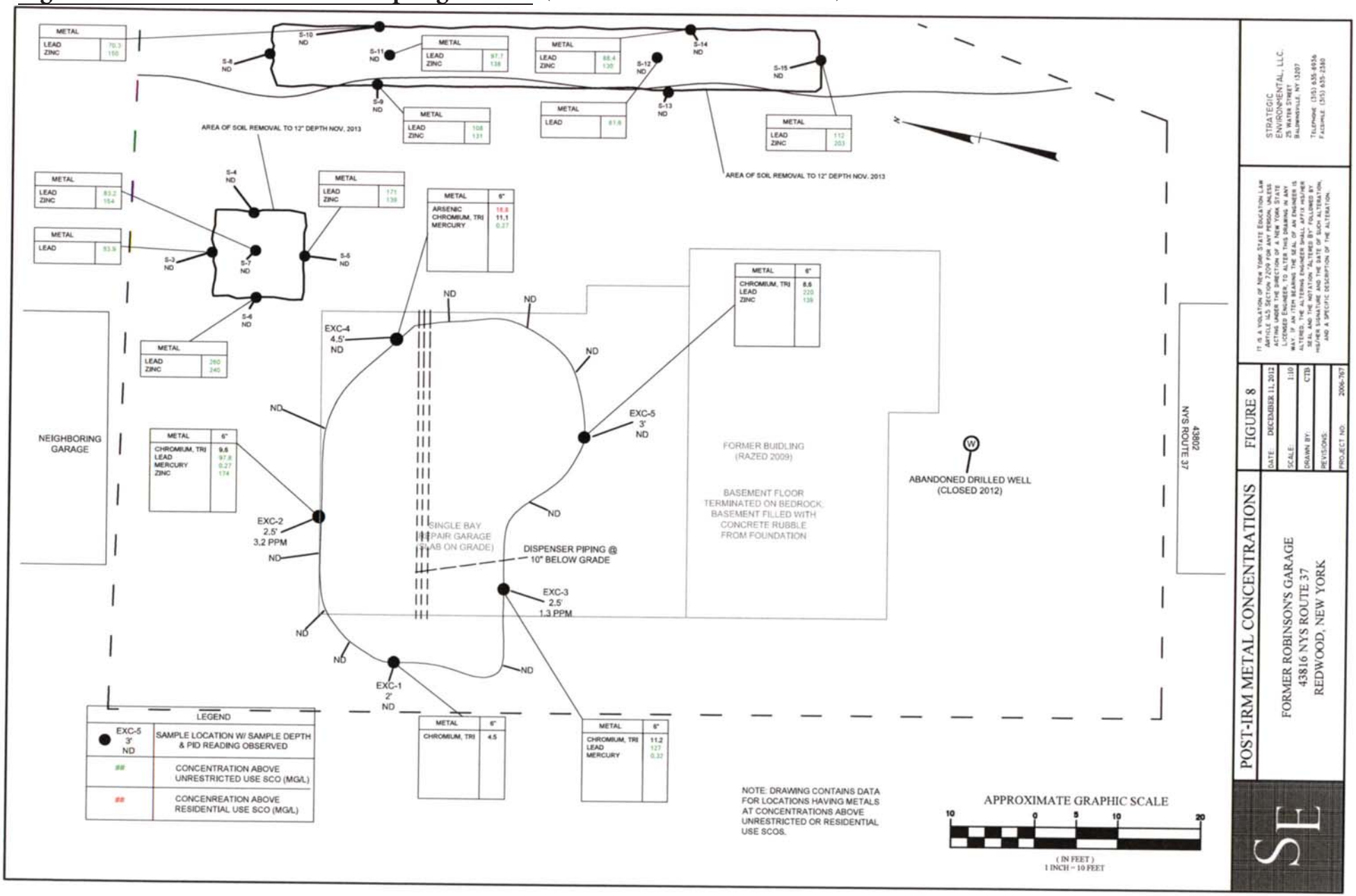
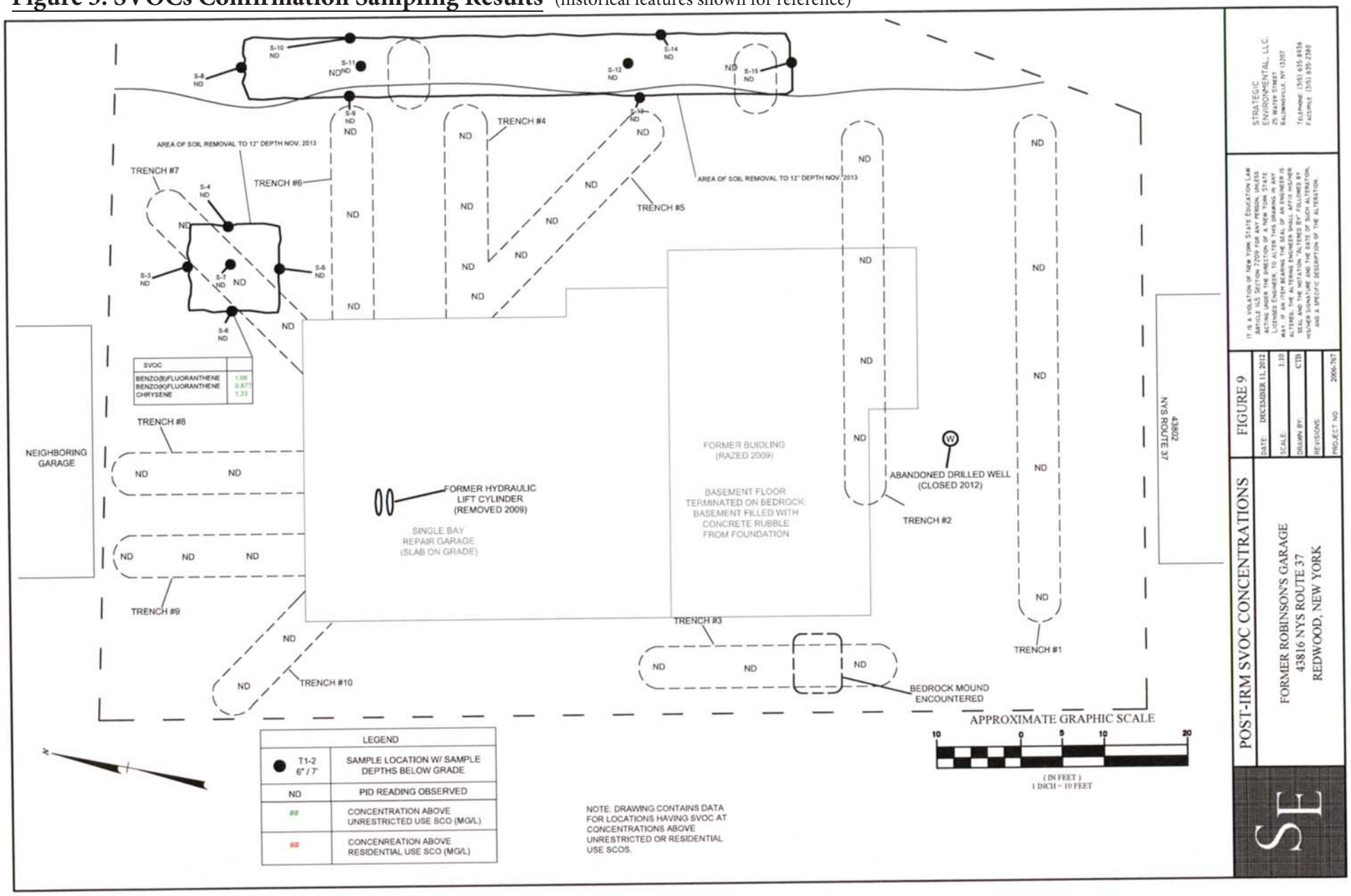


Figure 5: SVOCs Confirmation Sampling Results (historical features shown for reference)



APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

Robinson's Garage
Environmental Restoration Project
Alexandria, New York
Site No. E623024

The Proposed Remedial Action Plan (PRAP) for the Robinson's Garage 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 February 11, 2016. The PRAP outlined the remedial measures that have been implemented to address contaminated soil at the Robinson's Garage 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 meeting was held on March 10, 2016 which included a presentation of the remedial investigation and the interim remedial measures that have been conducted at the Robinson's Garage Site as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. The public comment period for the PRAP ended on March 28, 2016.

No public comments were received either at the public meeting or during the comment period ending March 28, 2016.

APPENDIX B

Administrative Record

Administrative Record

Robinson's Garage
Environmental Restoration Project
Alexandria, New York
Site No. E623024

1. Proposed Remedial Action Plan for the Robinson's Garage Site, dated February 2016 prepared by the Department.

2. Final Engineering Report, dated March 5, 2015, prepared by Strategic Environmental, LLC.

3. Remedial Investigation and Interim Remedial Measures Work Plan, dated, October 10, 2012, prepared by Strategic Environmental, LLC.

4. New York State Assistance Contract with Town of Alexandria, Contract No. C303848, May, 13, 2009.

5. Application for NYSDEC Environmental Restoration Program, Robinson's Garage Site, May 8, 2007, prepared by Fairman Sutton, Town Supervisor, Town of Alexandria.