Welcome

Bridge Cleaners
39-26 30th Street
Long Island City, Queens
Site No. 241127

Proposed Remedial Action Plan
Public Meeting 3/8/2022

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Introductions

Project Managers:

- Ruth Curley, P.E. — New York State Dept. of Environmental Conservation
- Eamonn O'Neill — New York State Department of Health

Public Participation Specialist:

- Tom Panzone — New York State Dept. of Environmental Conservation

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Agenda

- Overview of the Investigation Process
- Summarize the Investigation and Results
- Discuss Interim Remedial Measures Taken
- Present No Further Action/Site Monitoring Option
- Question and Answer Period

Investigation Process

- Identify a Site
- Investigate
  - Sampling of soil, groundwater, soil vapor
- Determine Actions needed
  - Options to address contamination are proposed & evaluated

OR

  - Immediate Actions (interim remedial measures (IRM)) may be taken to quickly address contaminants.

Investigation Process

- A Proposed Remedial Action Plan
  - **Public meeting & comment period**
- Possible modification of remedy based on public comments
- A Record of Decision finalizes the remedy
- Remedy is Implemented

- **The Proposed Remedial Action Plan**

  - Calls for No Further Action with Site Management

  - Describes how IRMs have already addressed contamination

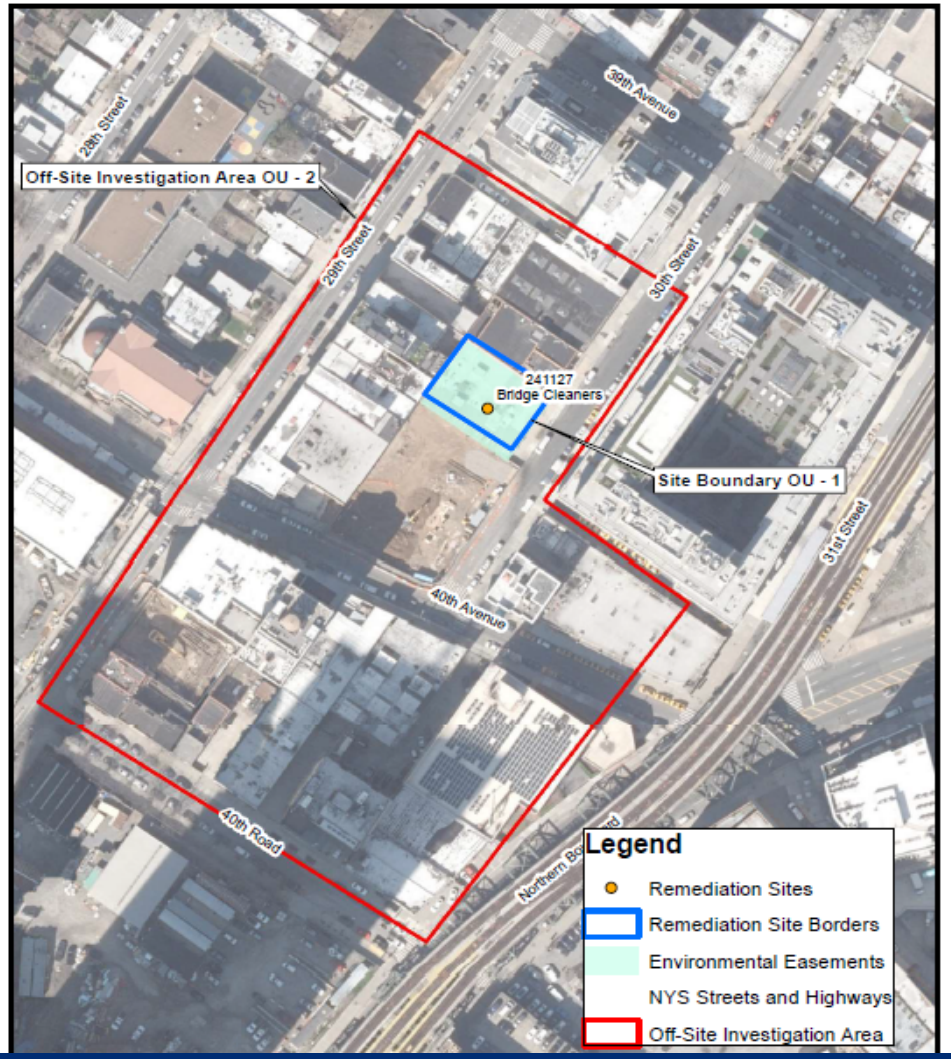
  - Describes the continuing elements of the on-site remedy
    - Operation of the Air Sparge/Soil Vapor Extraction System
    - A Site Management Plan and Environmental Easement
    - Site Cover System (existing building slab)

  - Describes actions taken to ensure any off-site impacts were addressed

Site History
&
Investigation Summary

Site Location

39-26 30th Street



Site History

- Building previously used as a warehouse/distribution point.
- Beginning in late 1990's, various dry-cleaning businesses occupied the structure.
- Current owner purchased the site in 2012.
- Recent use: fabric cutting/commercial laundry.

On-site Investigation Summary

- Soil
- Groundwater
- Soil Vapor

- PCE, a dry-cleaning chemical, was present in all these media on-site.
- TCE, a degradation product, was also present on-site in soil vapor.

PCE Contamination Summary

• Soil	Range: 1.8-9.6 ppm	Limit: 1.3 ppm
• Groundwater	Range: 165-340 ppb	Limit: 5 ppb
• Soil Vapor	Up to 665,000 ug/m3	
	DOH recommends mitigation above 1000 ug/m3	

An IRM was the best option to address the contamination

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Role of the NYS Department of Health

- Work with NYSDEC to identify nature and extent of contamination to evaluate potential exposures
- Evaluate data and make recommendations to address any potential exposure and evaluate the need for additional information
- Ensure that remedy selected is protective of public health

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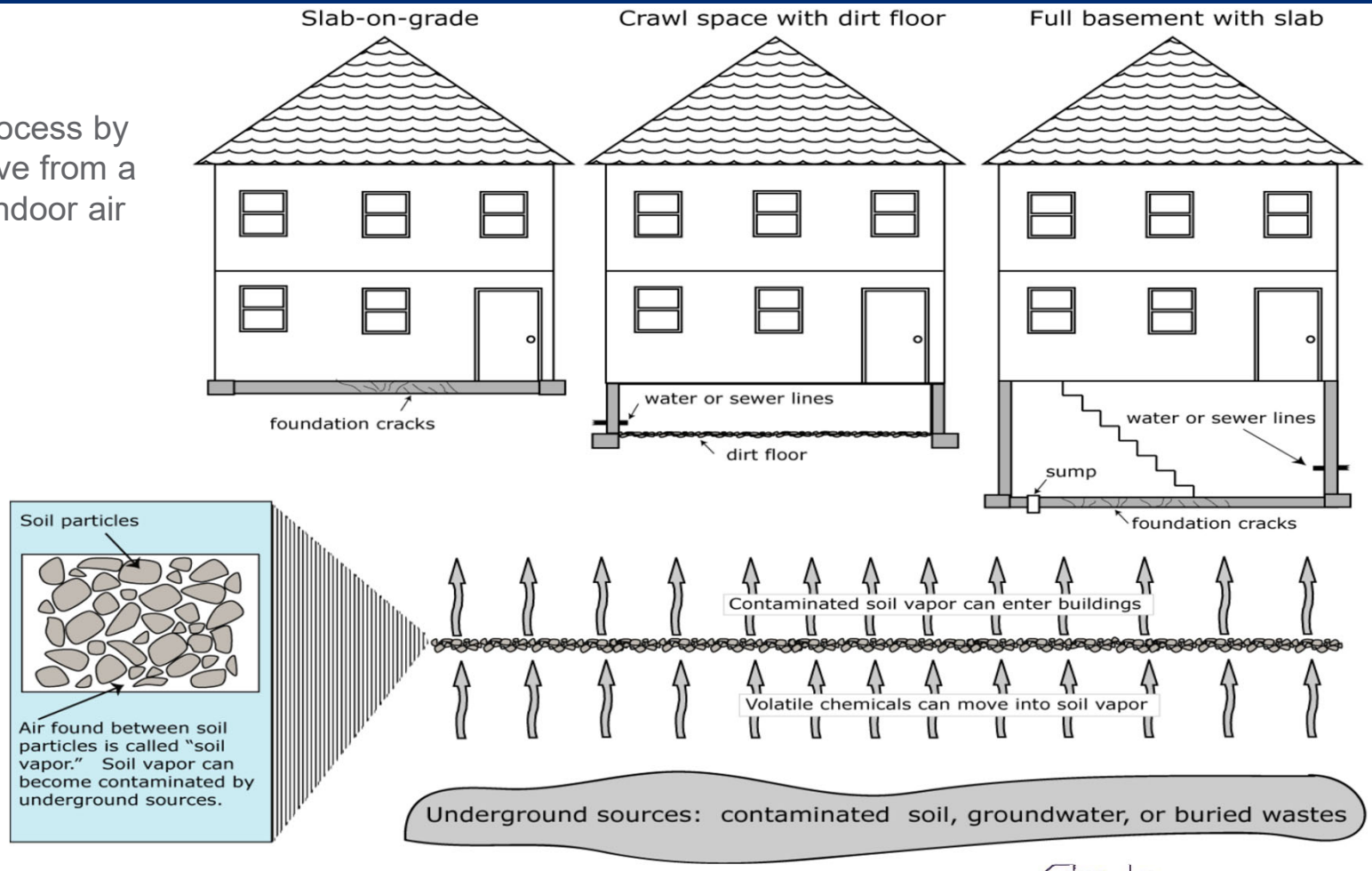
What is exposure?

- Physical contact with a chemical or substance
  - Inhalation (breathing)
  - Direct contact (touching)
  - Ingestion (eating/drinking)
- One or more of these physical contacts must occur before a chemical has the *potential* to cause a health problem
- Exposure does not necessarily mean that health effects will occur

Soil vapor intrusion is the process by which volatile chemicals move from a subsurface source into the indoor air of overlying buildings



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Potential Exposure Pathways

Inhalation

Direct Contact

Ingestion

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IRM – Air Sparge / Soil Vapor Extraction

- Air sparge pushes air into the groundwater, releasing the contaminants
- Soil vapor extraction removes the air from beneath the building and discharges it to the atmosphere.
- Comprised of 3 air sparge and 2 SVE points

IRM – Air Sparge / Soil Vapor Extraction

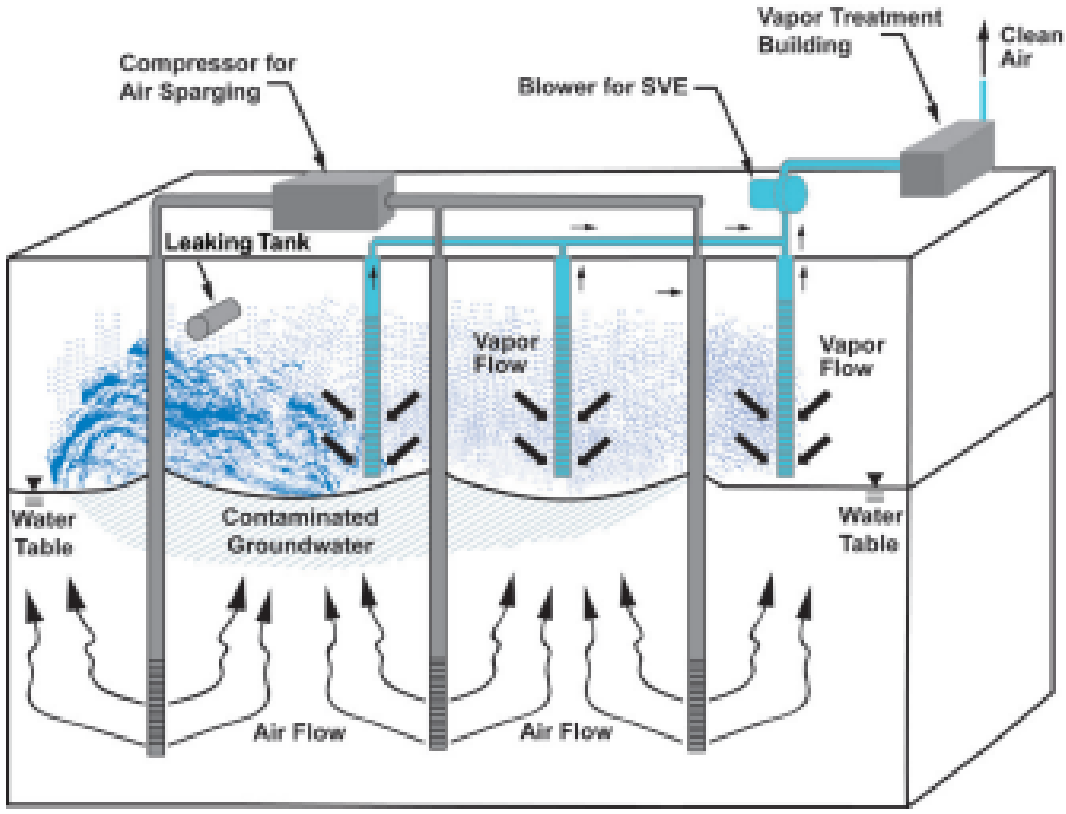

Illustration of a combined air sparging and SVE system.

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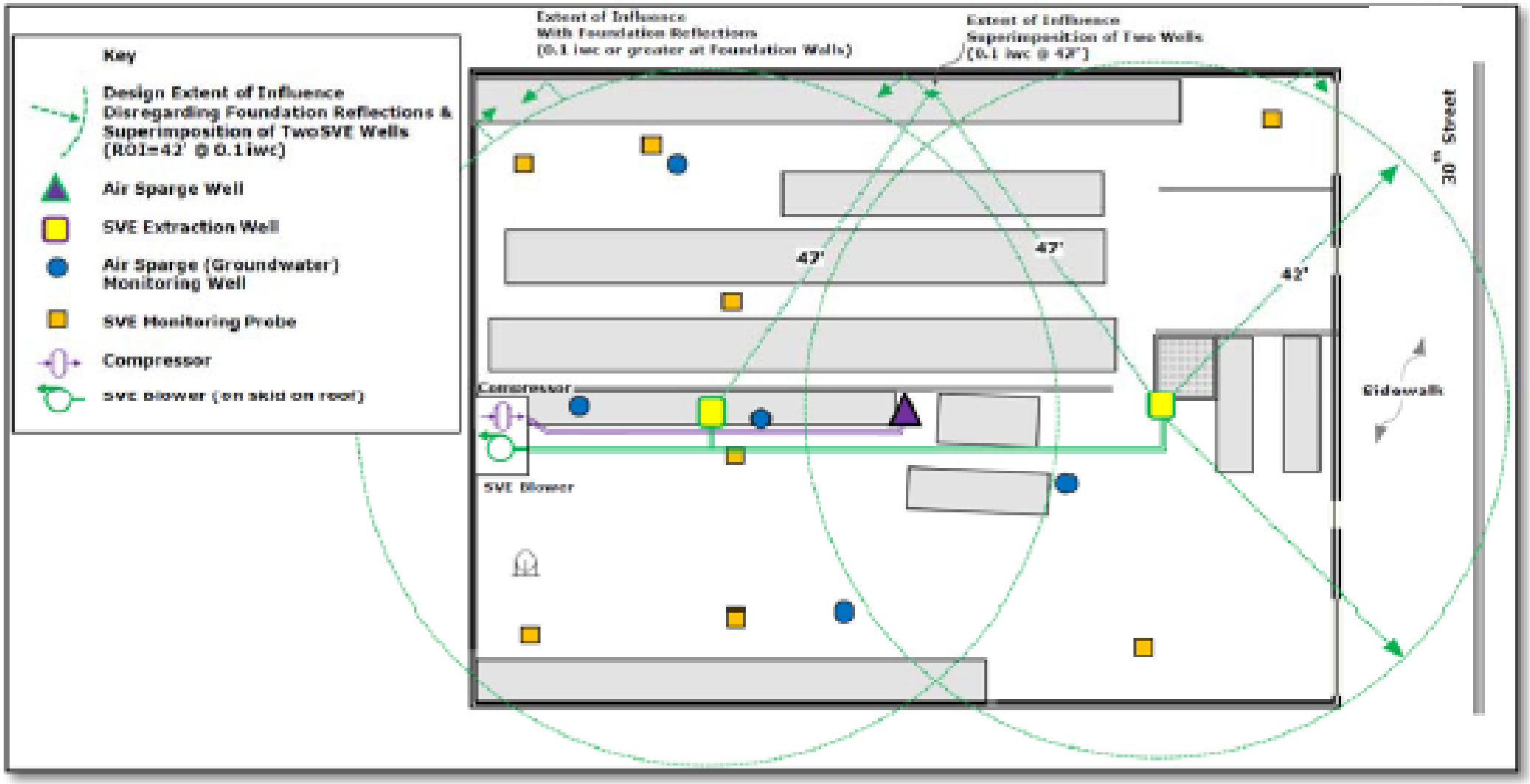
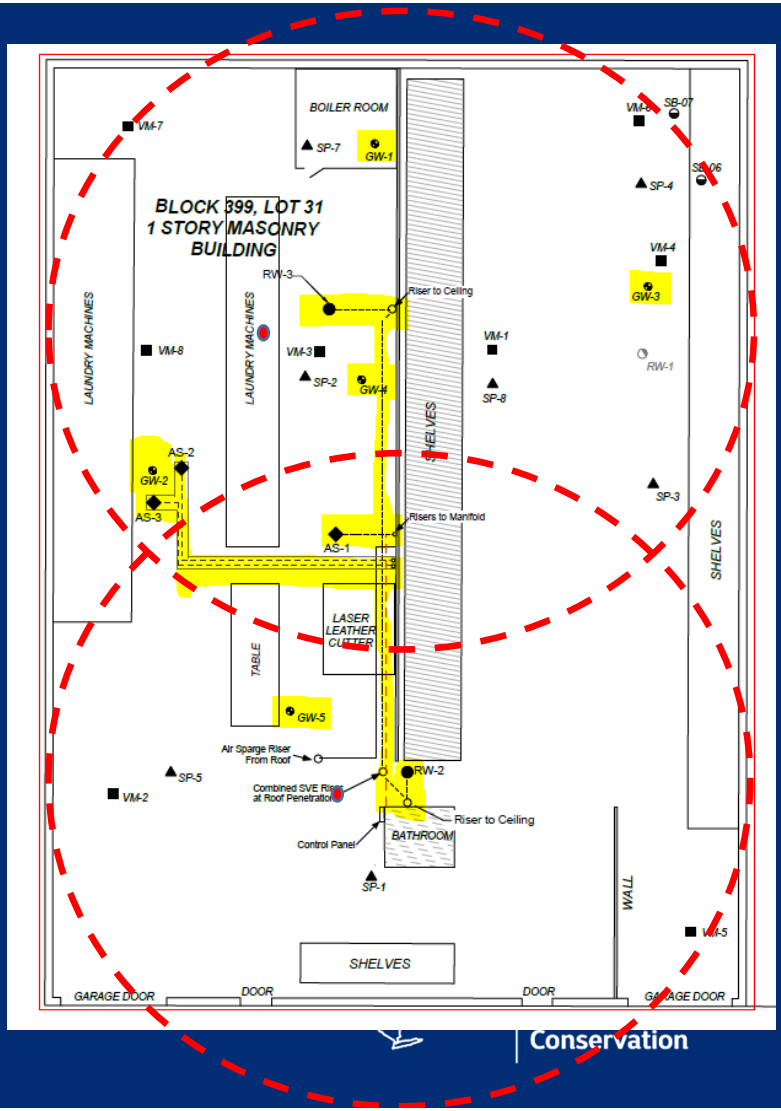
Figure 15 SVE Radius of Influence



IRM – Air Sparge & SVE System



IRM – Groundwater Results

GW Standard is 5 ppb

2 wells are below 5 ppb

3 wells exceed 5 ppb

	GW-2 (µg/L)							
	Tech Solutions	Integral			EECC			
ANALYTE	2/8/2014	09/09/16	11/18/18	05/17/19	06/15/20	01/25/21	04/28/21	09/29/21
PCE	165	200	240	210	300	18	0.4	0.29J
TCE	2.4	14	5.6	4.1	11	ND	ND	ND

	GW-4 (µg/L)							
	Tech Solutions	Integral			EECC			
ANALYTE	2/8/2014	09/09/16	11/18/18	05/17/19	06/15/20	01/25/21	04/28/21	09/29/21
PCE	254	90	71	7	3.2	1.4	ND	0.18J
TCE	2.6	1.5	1.3	0.44 J	0.26 J	ND	ND	ND

IRM – Groundwater Results

These wells still exceed 5 ppb for PCE.

GW-1 (µg/L)

ANALYTE	TechSolutions	Integral			EECC			
	2/8/2014	09/09/16	11/18/18	05/17/19	06/15/20	01/25/21	04/28/21	09/29/21
PCE	280	140	74	7.8	15	19	9.1	12
TCE	5.4	1.6	1.4	0.34 J	0.65	1.1	0.59	0.83

GW-3 (µg/L)

ANALYTE	TechSolutions	Integral			EECC			
	2/8/2014	09/09/16	11/18/18	05/17/19	06/15/20	01/25/21	04/28/21	09/29/21
PCE	175	44		10	25	23	23	29
TCE	2	1.2		0.87	1.1	0.87	0.77	0.81

GW-5 (µg/L)

ANALYTE	TechSolutions	Integral			EECC			
	2/8/2014	09/09/16	11/18/18	05/17/19	06/15/20	01/25/21	04/28/21	09/29/21
PCE	340	95	87	48	50	67	72	62
TCE	6.9	2.8	3.7	1.9	1.9	2	2.5	2.8

Reductions in On-Site Soil Vapor

PCE in Sub-Slab Vapor ug/m3			
	2014	2018	2022
SP-1	31700	233	23.3
SP-2	30400		79.3
SP-3	170000		71.9
SP-4	668000	1660	412
SP-5	21400	1590	41.6
SP-6	246000	1890	186
SP-7	44000	675	685

TCE in Sub-Slab Vapor ug/m3			
	2014	2018	2022
SP-1	623	10	3.1
SP-2	871		3.5
SP-3	554		ND
SP-4	2140	7.2	3.0
SP-5	919	72	8.8
SP-6	1930	16	10.7
SP-7	575	5.6	7.9

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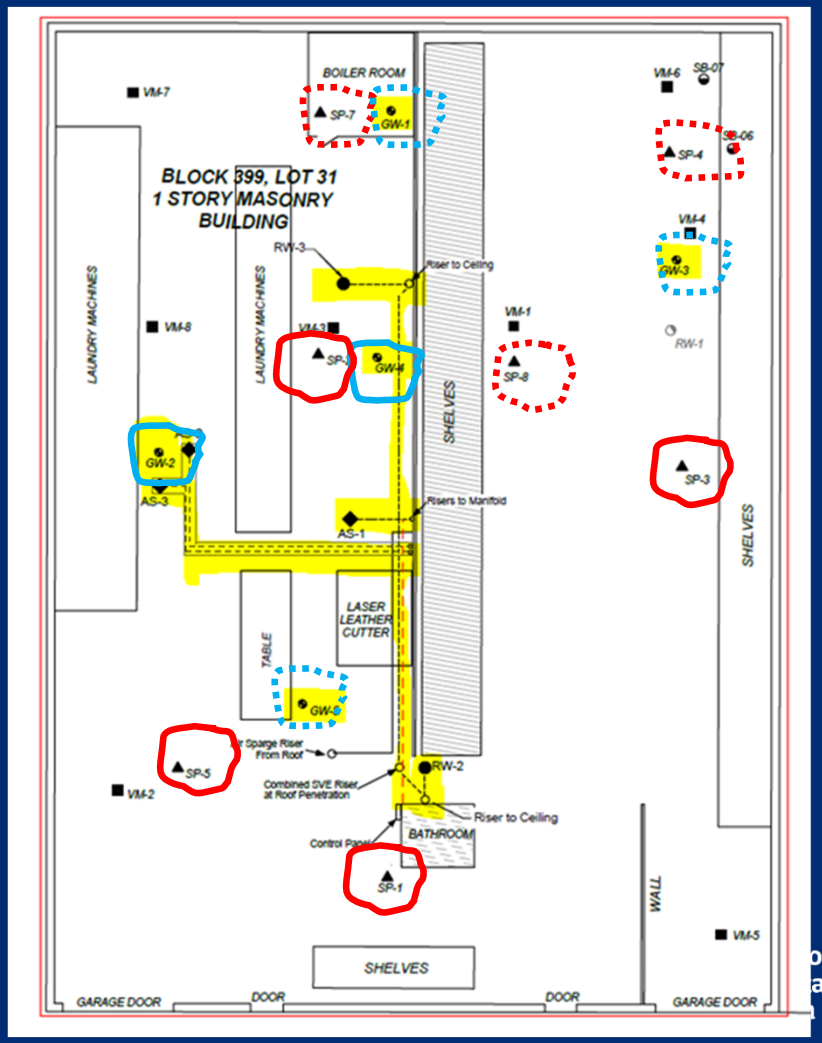
Results

Red – dashed - higher sub-slab concentrations

Blue – dashed – groundwater above 5 ppb

Red –solid – lower sub-slab #'s

Blue- solid- groundwater below 5 ppb standard



Conclusions

Significant reductions in site groundwater and soil vapor have occurred .

The Site Management Plan requires continued system operation until NYSDEC and NYSDOH agree that goals have been achieved.

OU2 - Off-Site Area

Work performed in Fall 2016

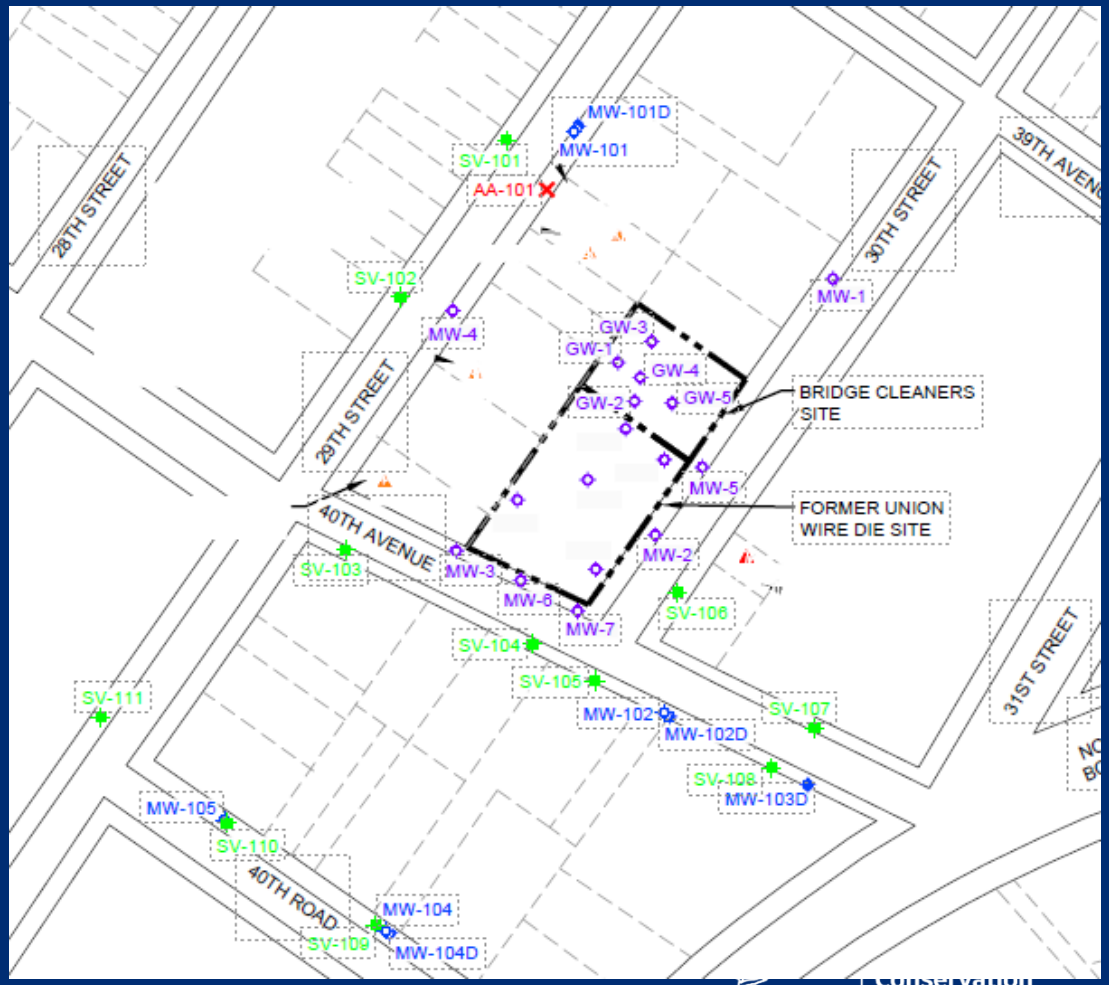
Groundwater & Soil Vapor Sampled in Vicinity of Site

OU2 - Off-Site Area

Off-Site Sample Locations

Groundwater Max: 369 ppb PCE
272 ppb TCE

Soil Vapor: Max: 2,400 ug/m3 PCE
4,400 ug/m3 TCE

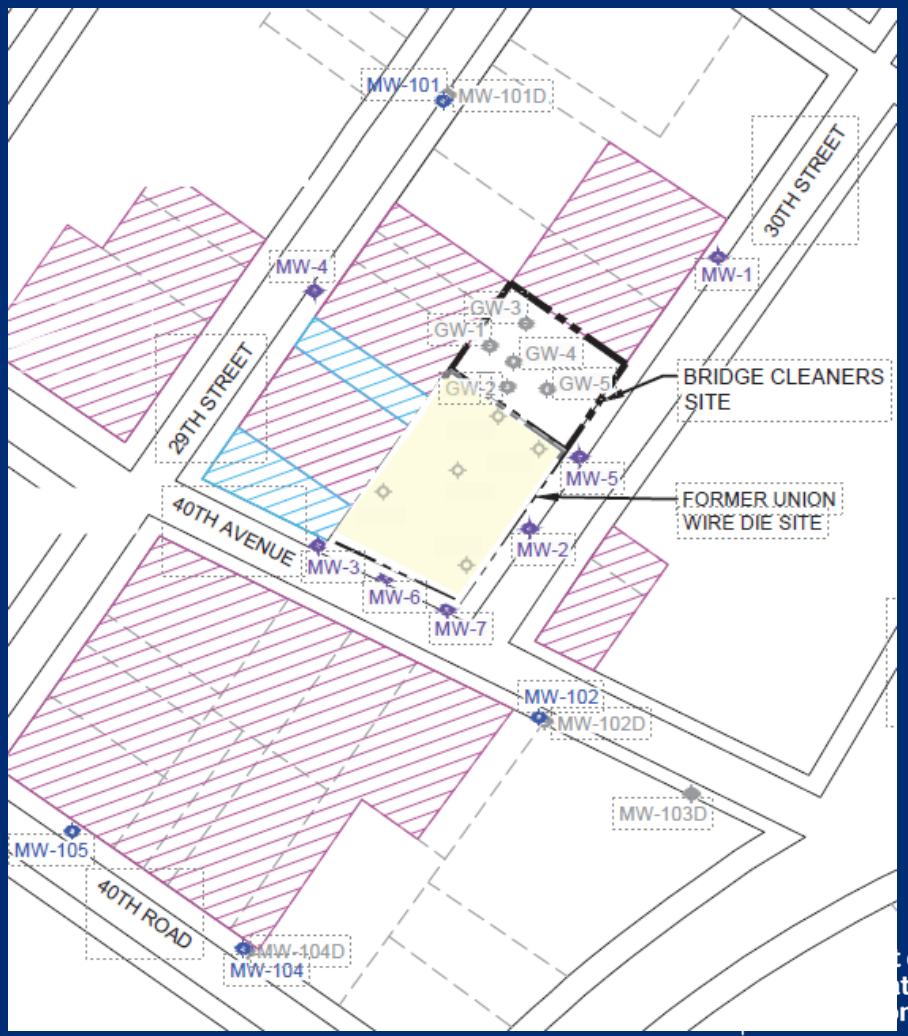


OU2 - Off-Site Area

Offered to perform sampling in adjacent structures

Six buildings sampled

One vapor mitigation system installed



OU2 - Off-Site Actions

- Adjacent Site - SVE system in 2016 to address possible source material below the building.
- System operated until 2019. (building demolished)
- After excavation, soil was sampled to ensure no source material remained.

Summary

- On-Site
  - Contamination is being addressed by a treatment system,
  - Significantly reduced groundwater and soil vapor contamination
  - Cover System, Site Management Plan & Env. Easement
- The system will remain in place and in operation.

No Further Actions necessary. Existing system will continue in operation.

Summary

- Off-Site
  - No remaining sources of contamination
    - The on-site GW is undergoing treatment
    - Adjacent site treated & removed soil
    - The off-site groundwater contamination reduced to near standards
    - Installed sub-slab depressurization system in 1 building

No Further Actions are necessary. Existing system will continue in operation

Project Contacts

Written comments may be sent via mail or email
Comment Period ends 3/19/2022

Comments / Technical Information:

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End of presentation