17-65813

FILE COPY

0316055033-Cook
Chicago/American Drapery Cleaners
SR/TECH

Illinois Environmental Protection Agency

Bureau of Land • 1021 N. Grand Avenue E. • Box 19276 • Springfield • Illinois • 62794-9276

Site Remediation Program Form (DRM-2)
(To be Submitted with all Plans and Reports)

You may complete this form online, save a copy, print, sign and mail it to the address above.

I. Site Identification:

Site Name: American Drapery Cleaners
Street Address: 2235-2239 West Roscoe Street P.O. Box:
City: Chicago State: IL Zip Code: 60618 Phone:
Illinois Inventory ID Number: 0316055033 IEMA Incident Number:

RECORDS MANAGEMENT RELEASABLE
IEPA-DIVISION OF

DEC 26 2017
REVIEWER: MJK

II. Remediation Applicant:

Applicant's Name: Mr. Richard Zell
Company: American Drapery Cleaners
Street Address: c/o Mr. Ariel Weissberg 401 S. LaSalle Street, Suite 403 P.O. Box:
City: Chicago State: IL Zip Code: 60605 Phone: (312) 663-0004
Email Address: zelldickzell@aol.com, ariel@weissberglaw.com

I hereby request that the Illinois EPA review and evaluate the attached project documents in accordance with the terms and conditions of the Environmental Protection Act (415 ILCS 5), implementing regulations, and the review and evaluation services agreement.

Remediation Applicant's Signature: Date: 29 Oct 17

III. Contact Person for Remediation Applicant:

Contact's Name: Mr. Richard Zell
Company: American Drapery Cleaners
Street Address: c/o Mr. Ariel Weissberg 401 S. LaSalle Street, Suite 403 P.O. Box:
City: Chicago State: IL Zip Code: 60605 Phone: (312) 663-0004
Email Address: zelldickzell@aol.com, ariel@weissberglaw.com

Contact Person for Consultant:

Contact's Name: Mr. Nicholas J. Cuzzone
Company: EPS Environmental Services, Inc.
Street Address: 7237 West Devon Avenue P.O. Box:
City: Chicago State: IL Zip Code: 60631 Phone: 773-792-3090
Email Address: ncuzzone@epsenv.com

IV. Review & Evaluation Licensed Professional Engineer or Geologist ("RELPEG"), if applicable:

RELPEG's Name:
Company:
Street Address: P.O. Box:
City: State: Zip Code: Phone:
Email Address:

RECEIVED
OCT 31 2017
IEPA/BOL

RECEIVED
OCT 31 2017
IEPA/BOL

IL 532-2547
LPC 566 March 2010

V. Project Documents Being Submitted:

Document Title: Response Letter and Tier 3 Evaluation
Prepared by: EPS Environmental Services, Inc.
Date of Preparation of Plan or Report: 10/25/2017
Prepared For: American Drapery Cleaners

Type of Document Submitted:

- ☐ Site Investigation Report - Comprehensive
- ☐ Site Investigation Report - Focused
- ☐ Remediation Objectives Report - Tier 1 or 2
- ☑ Remediation Objectives Report - Tier 3
- ☐ Remedial Action Plan
- ☐ Remedial Action Completion Report
- ☐ Sampling Plan
- ☐ Health and Safety Plan
- ☐ Community Relations Plan
- ☐ Risk Assessment
- ☐ Containment Fate & Transport Modeling
- ☐ Other: _____

Document Title: _____
Prepared by: _____
Date of Preparation of Plan or Report: _____
Prepared For: _____

Type of Document Submitted:

- ☐ Site Investigation Report - Comprehensive
- ☐ Site Investigation Report - Focused
- ☐ Remediation Objectives Report - Tier 1 or 2
- ☐ Remediation Objectives Report - Tier 3
- ☐ Remedial Action Plan
- ☐ Remedial Action Completion Report
- ☐ Sampling Plan
- ☐ Health and Safety Plan
- ☐ Community Relations Plan
- ☐ Risk Assessment
- ☐ Containment Fate & Transport Modeling
- ☐ Other: _____

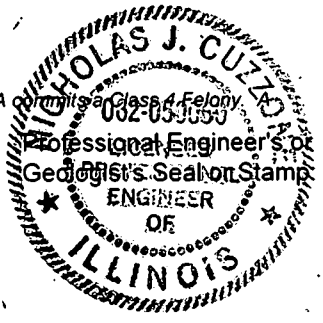
Document Title: _____
Prepared by: _____
Date of Preparation of Plan or Report: _____
Prepared For: _____

Type of Document Submitted:

- ☐ Site Investigation Report - Comprehensive
- ☐ Site Investigation Report - Focused
- ☐ Remediation Objectives Report - Tier 1 or 2
- ☐ Remediation Objectives Report - Tier 3
- ☐ Remedial Action Plan
- ☐ Remedial Action Completion Report
- ☐ Sampling Plan
- ☐ Health and Safety Plan
- ☐ Community Relations Plan
- ☐ Risk Assessment
- ☐ Containment Fate & Transport Modeling
- ☐ Other: _____

VI. Professional Engineer's or Geologist's Seal or Stamp:

I attest that all site investigations or remedial activities that are subject of this plan(s) or report(s) were performed under my direction, and this document and all attachments were prepared under my direction or reviewed by e, and to the best of my knowledge and belief, the work described in the plan and report has been designed or completed in accordance with the Illinois Environmental Protection Act (415 ILCS 5), 35 Ill. Adm. Code 740, and generally accepted engineering practices or principles of professional geology, and the information presented is accurate and complete.



Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 Felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Engineer's or Geologist's Name: Mr. Nicholas J. Cuzzone

Company: EPS Environmental Services, Inc.

Registration Number: 062-050060 Phone: (773) 792-3090

License Expiration Date: November 30, 2019

Signature: _____ Date: 11-3-17

Note: The authority of a Licensed Professional Geologist to certify documents submitted to the Illinois Environmental Protection Agency for review and evaluation pursuant to Title XVII of the Environmental Protection Act is limited to Site Investigation Reports (415 ILCS 58.7(f), as amended by P. A. 92-0735, effective July 25, 2002. A Licensed Professional Geologist cannot certify Remediation Objectives Reports, Remedial Action Plans or Remedial Action Completion Reports.

All information submitted is available to the public except when specifically designated by the Remediation Applicant to be treated confidentially as a trade secret or secret process in accordance with the Illinois Compiled Statutes, Section 7(a) of the Environmental Protection Act, applicable Rules and Regulations of the Illinois Pollution Control Board and applicable Illinois EPA rules and guidelines. The Illinois EPA is authorized to require this information under Sections 415 ILCS 5/58 - 58.12 of the Environmental Protection Act and regulations proumulgated thereunder. Disclosure of this information is required as a condition of participation in the Site Remediation Program. Failure to do so may prevent this form from being processed and could result in your plan(s) or report(s) being rejected. This form has been approved by the Forms Management Center.

17-65813

0316055033-Cook
Chicago/American Drapery Cleaners
SR/TECH

environmental services, inc.

FILE COPY

October 26, 2017

Mr. Jeffrey J. Guy
Illinois Environmental Protection Agency
Bureau of Land - Remedial Project Management Section
Site Remediation Program
1021 North Grand Avenue East
Springfield, Illinois 62794-9276

Re: Response Letter and Tier 3 Evaluation

Location: 0316055033-Cook County
Chicago/American Drapery Cleaners
Site Remediation/Technical

RECEIVED
OCT 31 2017
IEPA/BOL

Dear Mr. Guy:

The following is a response to comments listed in the Illinois Environmental Protection Agency (IEPA) letter dated September 6, 2017 (Appendix 6) for the above referenced location (the Site). The response includes a Tier 3 Evaluation to address the sealed limestone walls in the basement of the 2235 West Roscoe Site building and the sealed sumps. For clarification purposes, IEPA comments are italicized font and EPS Environmental Services, Inc. (EPS Environmental) responses are in normal font.

1. *Please address 35 Illinois Administrative Code (IAC) Section 742.1210(c)(1)(A-E) related to the sub-slab depressurization (SSD) system. Use identical chapter headings and include all the required elements. Sufficient detail and supporting information (e.g. photographs) should be included.*

See below in regards to the installation of the SSD system in accordance to IAC part 742.1210(c)(1)(A-E).

c) The following building control technologies are recognized for purposes of pathway exclusion under Section 742.312.

1) Sub-slab depressurization (SSD) systems meeting the following requirements:

A) A suction pit is installed that is at least two cubic feet and extends at least 6 inches below the slab (larger suction pits may be excavated as needed to achieve the performance criteria in subsection (c)(1)(B));

7237 West Devon Avenue • Chicago, Illinois 60631
(773) 792-3090 Fax (773) 792-3091

The SSD system consists of three (3) sub-slab suction pits (approximately two-cubic feet per location) and greater than six (6) inches below the slab; therefore, the requirements of this section have been met.

B) *A PVC pipe of at least 3 inches in diameter extends from the suction pit to the intake side of an in-line fan capable of achieving a static vacuum of at least 0.25 inches water column (wc) at the suction point and measureable vacuum at the farthest edges of the area served by the suction pit under worst case conditions (all exhaust fans and heating systems running, during cold weather) as determined by a differential pressure reading of at least -0.003 inches wc below the slab or visible downward flow of air at test holes using chemical or smoke sticks;*

The SSD system consisted of a total of three (3) sub-slab suction pits (approximately two-cubic feet per location) with three (3) inch diameter PVC header and trunk lines vented to the exterior. Following installation of the SSD system by an outside contractor, Cabeno Environmental Field Services, LLC (Cabeno) conducted a quantitative sub-slab test to verify the negative pressure field was sufficient in extent to encompass the entire square footage of the area impacted. Quantitative testing consisted of installing sub-slab vapor pins at specific locations within the 2235 West Roscoe Site building as far as possible from the individual suction pits. A digital micromanometer with a 0.001" WC resolution was used to measure vacuum at each point. A total of five (5) test points (TP1 through TP5) were installed. The results of the analysis are described below in Table 1:

TABLE 1:
Quantitative Analysis for the Negative Pressure Field

Test Point	Reading in Inches WC
TP1	0.014
TP2	0.077
TP3	0.194
TP4	0.020
TP5	0.014

The test point readings were within the differential pressure of at least 0.014" WC below the concrete slab, thereby demonstrating the system is in conformance with the generated sub-slab vacuum requirement of 0.003" WC as specified in 35 IAC 742.1210(B). See Appendix 5 for a copy of the Cabeno *Final Testing For Building Control Technology Report* dated October 11, 2017 and Appendix 1, Figures 4, 5, and 6 for copies of the construction of the SSD units, the extent of soil gas impacts at the Site, and the location of the SSD units in the Site buildings.

C) *All visible cracks and joints in the slab (including the place where the pipe exits the slab) and foundation walls are sealed;*

All visible cracks in the concrete floor were sealed following installation of the SSD system; therefore, the requirements of this section have been met. In addition, the limestone walls in the basement of the 2235 West Roscoe Site building were sealed with Emocote, a water/vapor proof sealant to prevent the migration of potential vapors within the 2235 West Roscoe Site building. Refer to the Tier 3 Evaluation for additional discussion regarding the Emocote Sealant.

D) *The pipe exhausts outside the building at least 10 feet above ground and at least 10 feet from any door or window; and*

The exhaust piping was installed at least 10 feet above the ground and at least 10 feet from doors and windows; therefore, the requirements of this section have been met.

E) *Additional suction pits meeting the requirements of subsection (c)(1)(A) shall be installed as necessary to achieve measureable vacuum below the slab in all areas, including in any area where subsurface or foundation conditions (e.g., a sub-slab grade beam) prevent adequate suction field extension.*

Based on the quantitative testing results, no additional suction pits are required to achieve the measureable vacuum beneath the slab in the potentially impacted area on the Site; therefore, the requirements of this section have been met.

An institutional control will be placed on the Site restricting all existing and future buildings to have full concrete slab on grade or full concrete basement floors and walls with no sumps. In addition, an institutional control will be placed on the Site requiring the Site owner to continually operate and maintain the SSD system.

See Appendix 1 for supporting figures, and Appendix 3 for photographic documentation of the SSD system and sealed walls.

2. *Please submit a Tier 3 evaluation in accordance with 35 IAC Section 742.935 (Indoor Inhalation Exposure Route). Specifically, please address 35 IAC Section 742.935(a) – Exclusion of Exposure Route – by providing information demonstrating that there is no actual or potential impact of contaminants of concern (COCs) to receptors from the indoor inhalation exposure route. Similarly, please use chapter headings and address all the required items. Supporting information should include, but not be limited to, the following:*

(1) Information related to the installed SSD system; (2) information regarding both sealed sumps; and (3) information regarding the sealed limestone walls.

Recommendation Requested From CORE

According to 35 Illinois Administrative Code (IAC) Part 742.935(a) titled *Indoor Inhalation Exposure Route – Exclusion of Exposure Route,* Site information may demonstrate that there is no actual or potential impact of contaminants of concern to receptors from the indoor inhalation exposure route. The 2235 West Roscoe Site building has been equipped with a sub-slab depressurization (SSD) system (e.g. building control technology) in accordance with IAC part 742.1210(c)(1). The purpose of this Tier 3 Evaluation is to demonstrate there is no actual or potential impacts to indoor air quality within the 2235 West Roscoe Site building. It should be noted, the main driver of the vapor mitigation system within the 2235 West Roscoe Site building is the recently installed SSD system as described above. Per the request of the IEPA, below is a Tier 3 Evaluation for the sealed limestone basement walls and sumps to be included as part of the mitigation efforts of the potential vapor intrusion at the Site.

Background Information

The Site is situated in a mixed commercial and residential setting in the City of Chicago, Cook County, Illinois. The Site consists of a rectangular-shaped parcel of land encompassing 0.13± acre. The Site is developed with three (3) commercial structures. The two (2) interconnected north buildings total approximately 2,350 square feet and were constructed in 1910 and 1923. The north Site buildings are constructed on separate full basements. The basement for 2235 West Roscoe Street is constructed of limestone block walls and concrete flooring and is equipped with a sump. The basement for 2239 West Roscoe Street is constructed with full concrete walls and floors and is also equipped with a sump. The south Site building is an approximate 2,244 square foot, one- and two-story brick building constructed on a full concrete slab foundation. No sumps were observed in the south Site building.

The Site is currently unoccupied. Prior to vacancy, the Site was occupied by American Drapery Cleaners & Flameproofing, Inc. Historically, the Site was occupied by a dye house as early as 1914.

Recognized Environmental Condition (REC) in Connection with the Site

The following recognized environmental condition (REC) in connection with the Site was identified in a *Phase I Environmental Assessment* (Phase I) dated December 15, 2000, prepared by Benchmark Environmental Services, Inc. (Benchmark):

- There is a potential for a release(s) (e.g., mismanagement, spills, leaks, and/or dumping) of petroleum products and/or hazardous materials/waste utilized in historical "dry cleaning" operations on-Site to have negatively impacted soil/groundwater and/or present a vapor intrusion condition within the Site buildings.

The following Controlled Recognized Environmental Condition (CREC) was identified in connection with the Site:

- A Leaking Underground Storage Tank (LUST) incident was reported for the Site in 1995. According to the LUST database, a No Further Remediation (NFR) letter was issued to the Site in February of 1998. Although no further investigations are required for the LUST incident, the LUST incident and the management of contamination in situ presents a CREC in connection with the Site.

Environmental Media

Soil and Groundwater Exceedances

Based on the results of soil and groundwater sampling conducted at the Site, no concentrations of volatile organic compounds (VOCs) or semi-volatile organic compounds (SVOCs) were identified in Site soil or groundwater above 35 Illinois Administrative Code (IAC) Part 742, titled *Tiered Approach to Corrective Action Objectives* (TACO) Tier 1 or Tier 2 soil remediation objectives (SROs) or groundwater remediation objectives (GROs) for residential land use and Class II Groundwater, or background concentrations found within the City of Chicago. See
2 for a copy of the soil, groundwater and soil gas comparison tables.

Soil Gas Exceedances

No concentrations of volatile chemicals (VCs) were identified above the soil gas component of the TACO Tier 1 advection/diffusion SGROs for residential land use. However, due to the construction of the basement at 2235 West Roscoe (limestone walls), indoor air remediation objectives were utilized in this portion of the Site. As such, concentrations of VCs exceeded the indoor air remediation objectives (J&E1 and J&E2). As discussed above, the indoor inhalation exposure pathway has been excluded using a building control technology (e.g. SSD system) in accordance with IAC part 742.1210(1)(A-E).

Removal or Remedial Actions

Based on the results of the soil, groundwater and soil gas sampling at the Site, no active remediation is warranted.

Geology and Hydrogeology

Geology

According to the Chicago Loop Quadrangle map, the general topography of the area displays an approximate six (6)-foot decrease in elevation within 1,500-feet west of the Site, in the direction of the North Branch of the Chicago River.

According to ISGS Circular #460, *Surficial Geology of the Chicago Region*, the Site is located on the Carmi Member of the Equality Formation. These Pleistocene Age deposits consist of largely quiet water lake sediments; dominantly well-bedded silt, locally laminated and containing thin beds of clay. Local lenses of sand and sandy gravel are present along ancient beaches.

The Site is located in an area rated as C1. The rating denotes the capacities of earth material to accept, transmit, restrict or remove contaminants from waste effluent. In general, a C1 rating area contains permeable bedrock within 20 to 50 feet of the surface, overlain by till or other fine-grained material.

Based on soil borings conducted, shallow Site soil consists of varying depths of gravel fill material underlain by silty clay to the maximum boring depth of 16 feet below ground surface (bgs).

Hydrogeology

Groundwater Classification

To determine Site groundwater classification, a Site-specific hydraulic conductivity was obtained by conducting a rising head slug test on monitoring well MW-2 on February 13, 2017. A disposable bailer was lowered into existing groundwater within the casing of the monitoring well. The groundwater elevation prior to insertion of the bailer was recorded and the groundwater was allowed to return to this elevation prior to removal of the "slug". The bailer was rapidly withdrawn from the monitoring well and groundwater elevation changes within the well were recorded at 15-second intervals using a stopwatch and an audible water level probe (Solinst Model 122). The hydraulic conductivity was calculated by inputting the rise in the water depth versus time change with methodology according to *Bouwer and Rice (1976)* using *Aquifer Test, Waterloo Hydrogeologic*. Pertinent information regarding the slug test is listed in Table 2 below.

TABLE 2:
Groundwater Data
2235-2239 West Roscoe Street, Chicago, Illinois
Chicago, Illinois 02/13/17

Test #	Initial Depth to Water	Depth to Water Following Slug Removal	Initial Displacement	Final Depth to Water
MW-2	1.59'	2.82'	1.23'	2.64'

Results of the analyses indicate Site groundwater has a hydraulic conductivity of 4.42×10^{-7} cm/sec. According to 35 Ill. Adm. Code 620, groundwater is classified as Class II, general resource groundwater when the hydraulic conductivity is less than 1.0×10^{-4} cm/sec. Based on the information above and identified in the previously submitted *Remedial Objectives Report* (ROR) dated April 19, 2017, the criteria for a Class II groundwater designation has been satisfied according to 35 Ill. Adm. Code 620. Therefore, Site groundwater is classified Class II.

Groundwater Elevation, Gradient and Flow Direction

As no concentrations of contaminants of concern were identified above the TACO Tier 1 SROs and GROs for Class II Groundwater, groundwater elevation and flow direction investigation is not warranted at this time.

Current and Future Land Use

The Site is currently unoccupied. The future land use of the Site is unknown. However, the remedial applicant requests a focused No Further Remediation letter for residential land use.

Overview of the Vapor Mitigation System

Information Related to the Installed SSD System

The SSD system was installed according to IAC Part 742.1210(1)(A-E). This building control technology has been described in comment 1 of this report.

Information Regarding the Sealed Limestone Walls and Sump

Although the installed IEPA approved sub-slab depressurization system is the main driver of the vapor mitigation system, the limestone walls in the basement of the 2235 West Roscoe Site building were sealed as a preventative measure. IAC part 742.935(b)(1-11) will be utilized as part of the indoor inhalation pathway exclusion. It should be noted, IAC part 742.935(b)(1-7) has been previously discussed above, and will not be further discussed in this section.

8.) A description of any building control technologies currently in place or proposed for installation that can reduce or eliminate the potential for completion of the exposure route, including design and construction specifications;

In addition to the installation of the SSD system in the 2235 West Roscoe Site building, the limestone walls of the basement have been sealed with waterproof/vapor proof sealant (e.g. EMECOLE® Emekote® 100 and EmeSealCrete®) to effectively prevent any potential vapors from migrating into the 2235 West Roscoe Site building. See Appendix 4 for a copy of the specific information regarding the sealing material utilized.

Moreover, the sumps in both the 2235 and 2239 West Roscoe Site buildings have been sealed using Emecole Radon Shield Sealant®. These products were applied according to all manufactures specifications and guidelines. See Appendix 1, Figures 7 and 8 for illustrations of the foundation/sump sealing; and Appendix 3 for photographic documentation.

9.) Information regarding the effectiveness of any building control technologies currently in place or proposed for installation and a schedule for performance testing to show the effectiveness of the control technology. For buildings not yet constructed, an approved building control technology shall be in place and operational prior to human occupancy;

The sealing of the limestone walled basement and sumps is a method to reduce the risks associated with potential vapor mitigation within the 2235 and 2239 West Roscoe Site buildings. The quantitative sub-slab tests to verify the negative pressure field were sufficient in extent to encompass the entire square footage of the area impacted. Based on the results of the quantitative testing, test point readings were within the differential pressure of at least 0.014" WC below the concrete slab, thereby demonstrating the system is in conformance with the generated sub-slab vacuum requirement of 0.003" WC as specified in 35 IAC 742.1210(B). Therefore, the current building control technology is demonstrated to be effective in mitigating the potential vapor intrusion.

10.) Identification of documents reviewed and the criteria used in the documents for determining whether building control technologies are effective and how those criteria compare to existing or potential buildings or man-made pathways at the site; and

See Appendix 4 for a copy of the product specific information regarding the sealing of the limestone walls and sumps.

11.) A description as to how the effectiveness of the building control technologies will be operated and maintained for the life of the buildings and man-made pathways, or until soil gas and groundwater contaminant concentrations have reached remediation objectives that are approved by the Agency. This includes provision for potential extended system inoperability due to power failure and other disruptions;

The sealing of the concrete limestone walls does not require the use of mechanical power for continued operations; therefore, provisions for extended system inoperability due to power failure is not applicable.

However, an institutional control will be placed on the Site in the form of a deed restriction restricting all existing and future buildings to have full concrete slab on grade or full concrete basement floors and walls, with no sumps. In addition, an institutional control will be placed on the Site requiring the Site owner to continually operate and maintain the SSD systems.

Following your review of the above comments and the Tier 3 Evaluation, EPS Environmental request the issuance of a draft NFR letter. If you have any questions or need any additional information please contact me at your convenience.

Sincerely,

Nicholas J. Cuzzone, P.E.
Senior Project Engineer

Enclosure

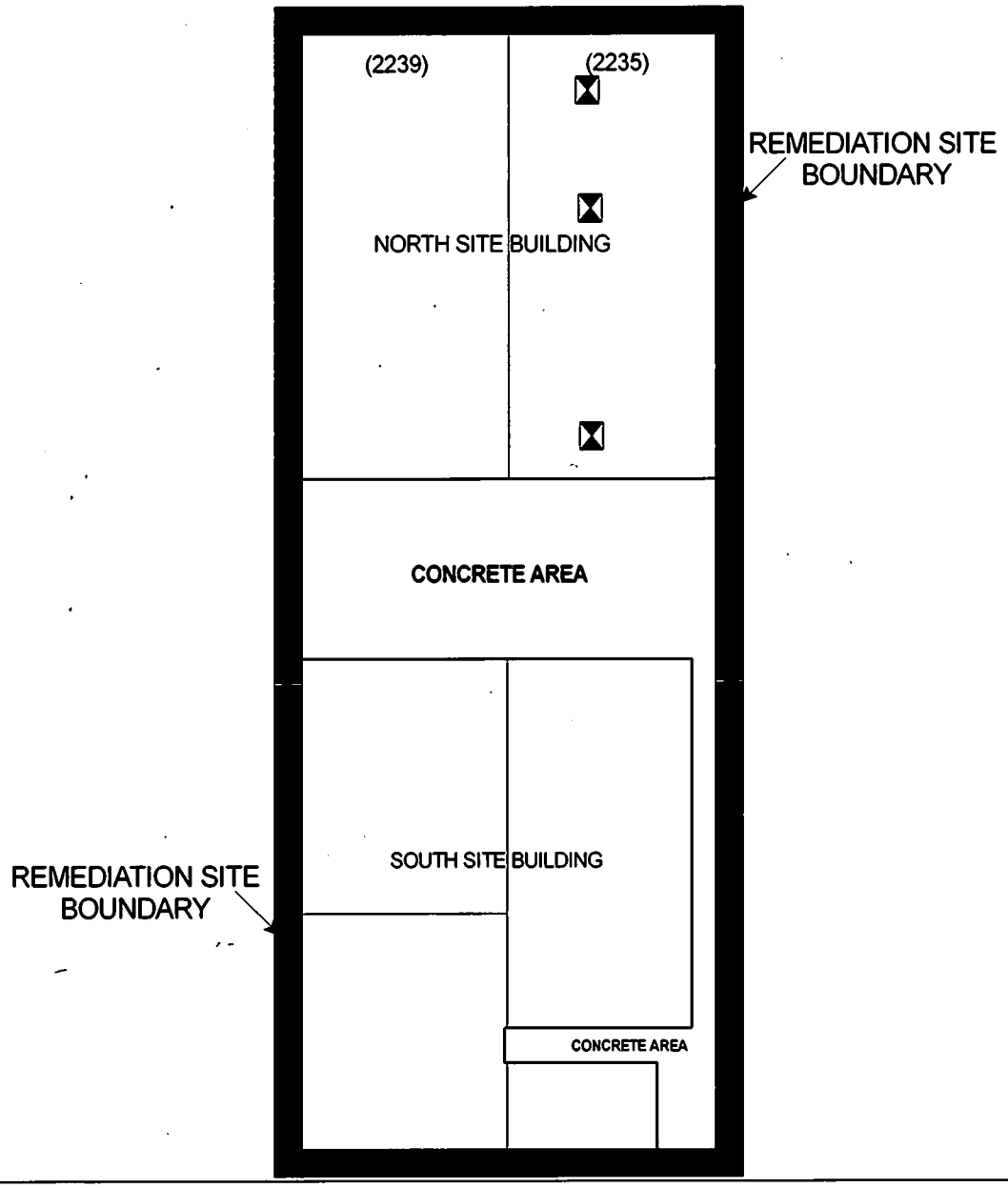
APPENDIX 1

Figures

Site Base Map
LPC#: 0316055033 - Cook County
Chicago/American Drapery Cleaners
Site Remediation Program/Technical Reports

North

WEST ROSCOE STREET



PUBLIC ALLEY

= Location of SSD Sump Pit

Scale:
1 inch = 20 feet

0' 20'

FIGURE 1 - SITE LOCATION MAP

2235-2239 West Roscoe Street
Chicago, Illinois

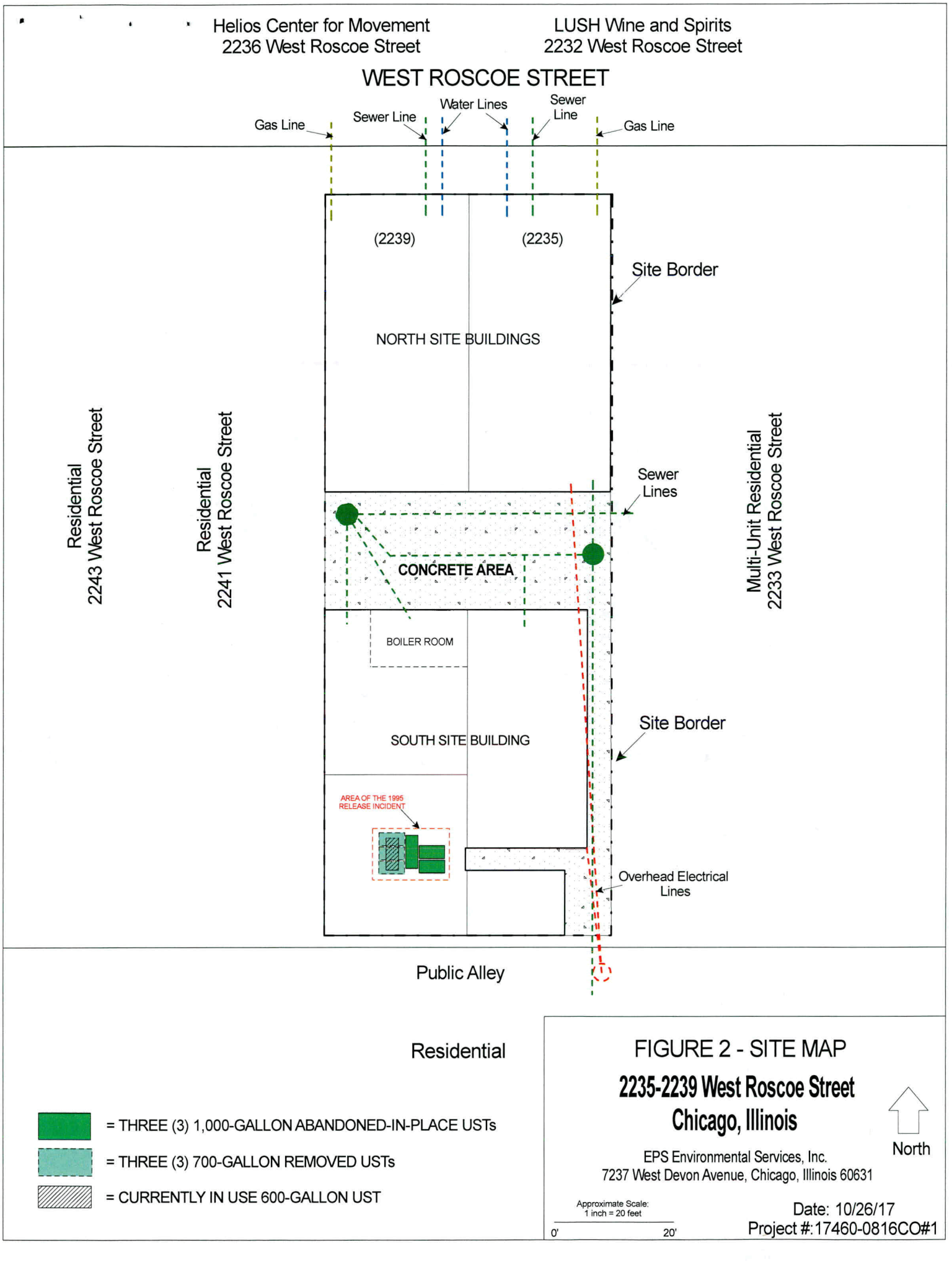
North

EPS Environmental Services, Inc.
7237 West Devon Avenue, Chicago, Illinois 60631

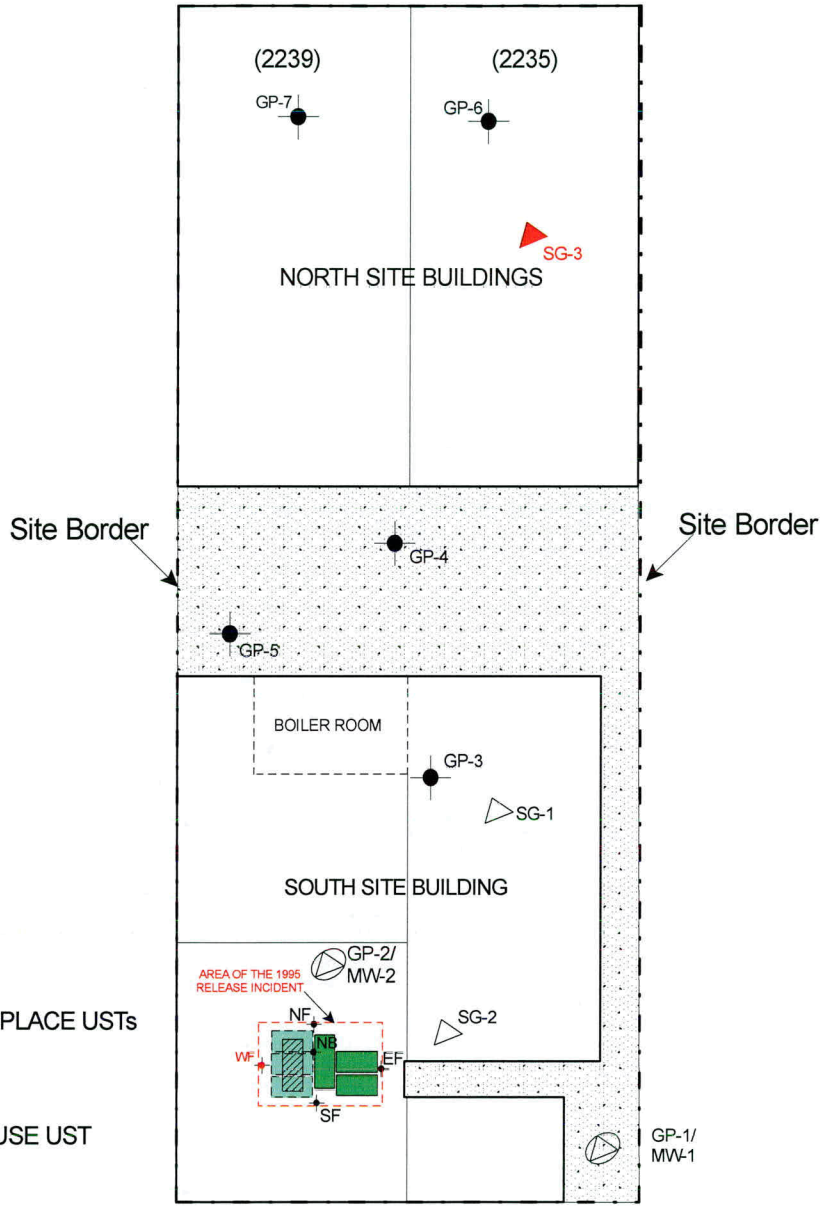
not to scale

Date: 10/26/17

Project #:17460-0816CO#1


Helios Center for Movement
2236 West Roscoe Street
LUSH Wine and Spirits
2232 West Roscoe Street
WEST ROSCOE STREET
Gas Line
Sewer Line
Water Lines
Sewer Line
Gas Line
(2239)
(2235)
Site Border
NORTH SITE BUILDINGS
Residential
2243 West Roscoe Street
Residential
2241 West Roscoe Street
Sewer Lines
Multi-Unit Residential
2233 West Roscoe Street
CONCRETE AREA
BOILER ROOM
Site Border
SOUTH SITE BUILDING
AREA OF THE 1995 RELEASE INCIDENT
Overhead Electrical Lines
Public Alley
Residential
= THREE (3) 1,000-GALLON ABANDONED-IN-PLACE USTs
= THREE (3) 700-GALLON REMOVED USTs
= CURRENTLY IN USE 600-GALLON UST
FIGURE 2 - SITE MAP
2235-2239 West Roscoe Street
Chicago, Illinois
North
EPS Environmental Services, Inc.
7237 West Devon Avenue, Chicago, Illinois 60631
Approximate Scale:
1 inch = 20 feet
0'
20'
Date: 10/26/17
Project #:17460-0816CO#1

WEST ROSCOE STREET



PUBLIC ALLEY

GP-3 = Approximate Soil Boring Location

WF = Soil Sample Exceeds Tier 1 SROs

GP-1/ MW-1 = Approximate Boring and Well Location

SG-1 = Approximate Soil Gas Sample Location

SG-3 = Soil Gas Sample Exceeds Indoor Air Remediation Objectives

FIGURE 3 - BORING, SOIL GAS SAMPLE AND MONITORING WELL LOCATION MAP

2235-2239 West Roscoe Street
Chicago, Illinois

EPS Environmental Services, Inc.
7237 West Devon Avenue, Chicago, Illinois 60631

North

Approximate Scale:
1 inch = 20 feet

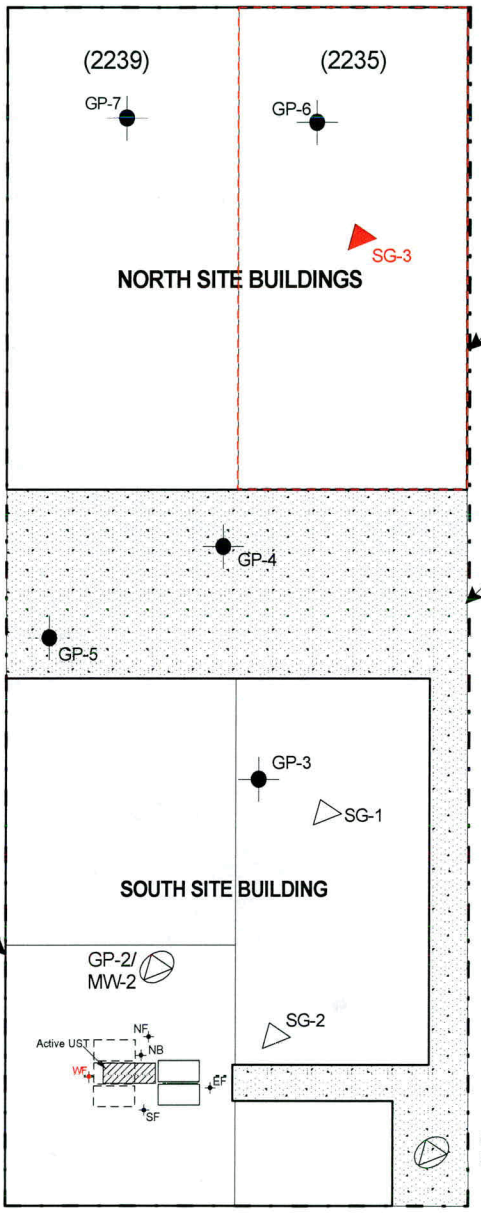
0' 20'

Date: 10/26/17
Project #:17460-0816CO#1

WEST ROSCOE STREET

NOTE: THE BASEMENT OF 2239 WEST ROSCOE STREET IS CONSTRUCTED OF FULL CONCRETE WALLS AND FLOORS. NO POTENTIAL VAPOR MITIGATION WARRANTED.

NOTE: THE BASEMENT OF 2235 WEST ROSCOE STREET IS CONSTRUCTED OF LIMESTONE BLOCK WALLS AND CONCRETE FLOORS. POTENTIAL VAPOR MITIGATION WARRANTED.



NOTE: THE SOUTH SITE BUILDING IS CONSTRUCTED ON A CONCRETE SLAB ON GRADE FOUNDATION. NO POTENTIAL VAPOR MITIGATION WARRANTED.

PUBLIC ALLEY

GP-3 = Approximate Soil Boring Location

WF = Soil Sample Exceeds Tier 1 SROs

GP-1/ MW-1 = Approximate Boring and Well Location

SG-1 = Approximate Soil Gas Sample Location

SG-3 = Soil Gas Sample Exceeds Indoor Air Remediation Objectives

FIGURE 4 - EXTENT OF CONTAMINATION EXCEEDING TACO INDOOR AIR REMEDIATION OBJECTIVES

2235-2239 West Roscoe Street
Chicago, Illinois

North

EPS Environmental Services, Inc.
7237 West Devon Avenue, Chicago, Illinois 60631

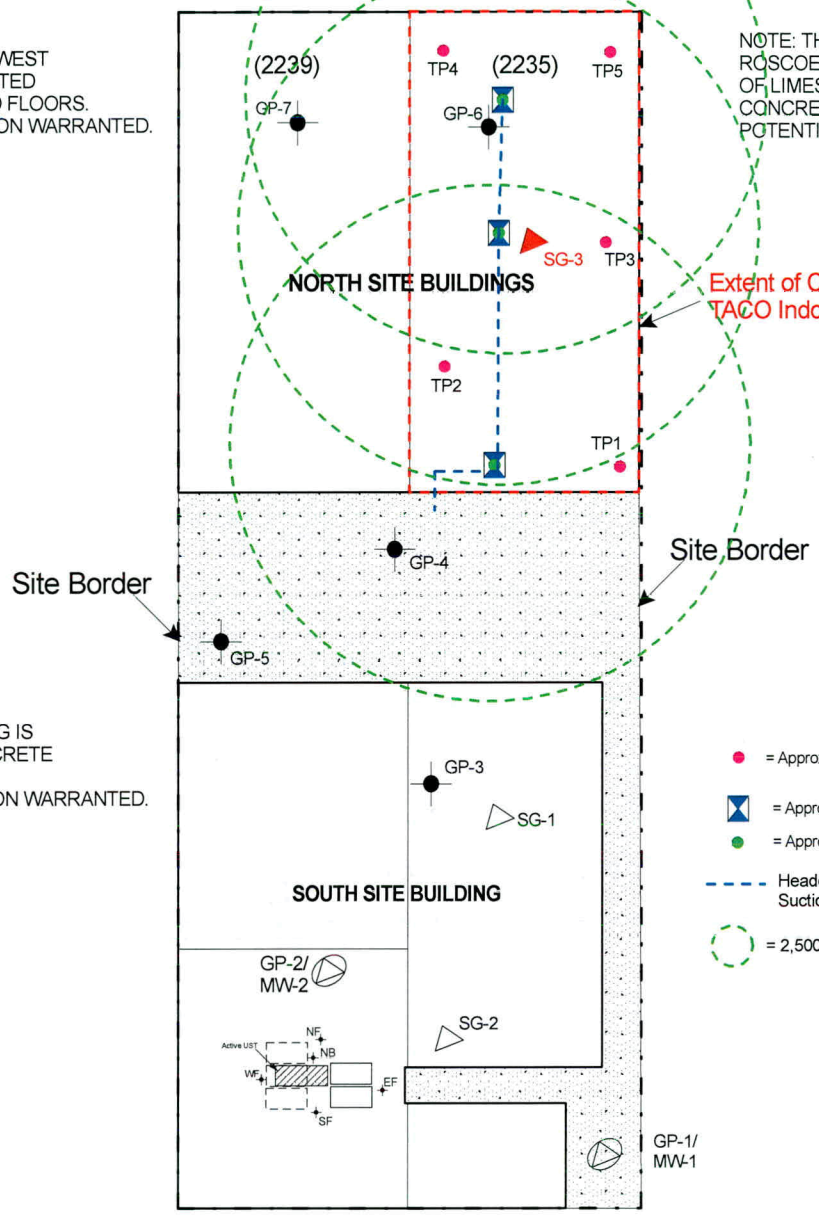
Approximate Scale:
1 inch = 20 feet
0' 20'

Date: 10/26/17
Project #:17460-0816CO#1

WEST ROSCOE STREET

NOTE: THE BASEMENT OF 2239 WEST ROSCOE STREET IS CONSTRUCTED OF FULL CONCRETE WALLS AND FLOORS. NO POTENTIAL VAPOR MITIGATION WARRANTED.

NOTE: THE BASEMENT OF 2235 WEST ROSCOE STREET IS CONSTRUCTED OF LIMESTONE BLOCK WALLS AND CONCRETE FLOORS. POTENTIAL VAPOR MITIGATION WARRANTED.



NOTE: THE SOUTH SITE BUILDING IS CONSTRUCTED ON A FULL CONCRETE SLAB ON GRADE FOUNDATION. NO POTENTIAL VAPOR MITIGATION WARRANTED.

PUBLIC ALLEY

GP-3 = Approximate Soil Boring Location

GP-1/ MW-1 = Approximate Boring and Well Location

SG-1 = Approximate Soil Gas Sample Location

SG-3 = Soil Gas Sample Exceeds Indoor Air Remediation Objectives

FIGURE 5 - SUB SLAB DEPRESSURIZATION SYSTEM LOCATION MAP

2235-2239 West Roscoe Street
Chicago, Illinois

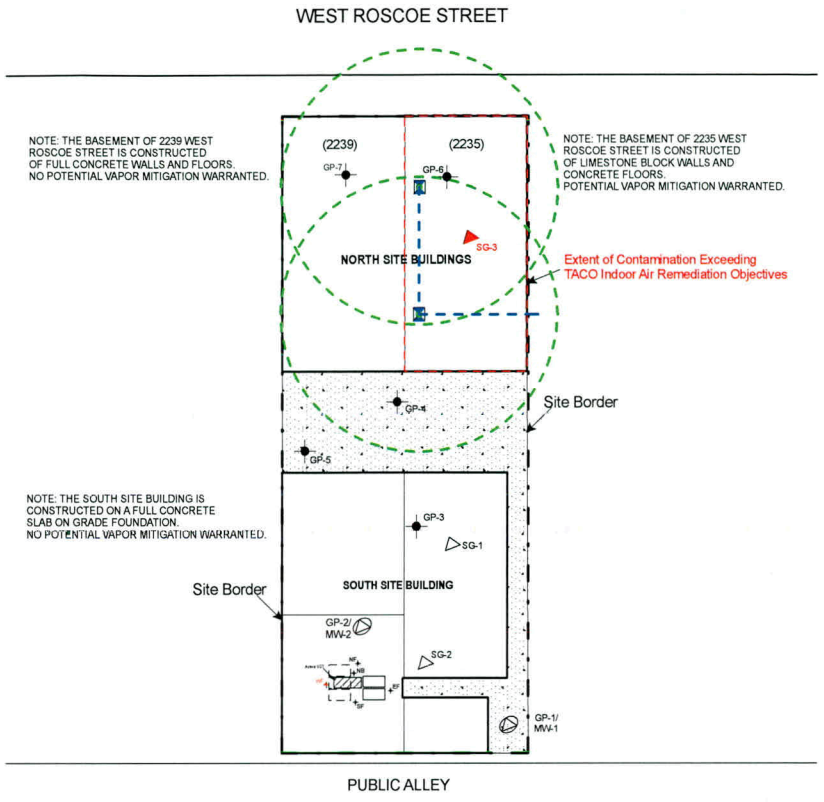
North

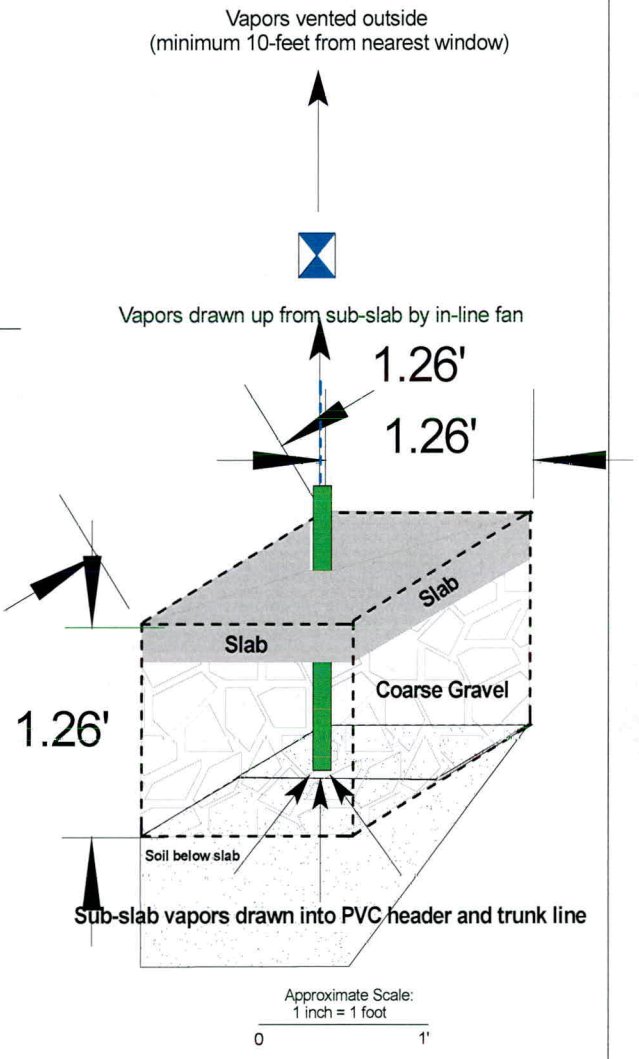
EPS Environmental Services, Inc.
7237 West Devon Avenue, Chicago, Illinois 60631

Approximate Scale:
1 inch = 20 feet

0' 20'

Date: 10/26/17
Project #:17460-0816CO#1





= Approximate Location of the Sump Pit

= Approximate Location of the In-line Fan

Header and trunk line system connecting Suction pit/sump to in-line fan

= 2,500 sqft potential vapor pull from fan system

GP-3 = Approximate Soil Boring Location

GP-1/ MW-1 = Approximate Boring and Well Location

SG-1 = Approximate Soil Gas Sample Location

SG-3 = Soil Gas Sample Exceeds Indoor Air Remediation Objectives

FIGURE 6 - SUB SLAB DEPRESSURIZATION CROSS SECTION MAP

2235-2239 West Roscoe Street Chicago, Illinois

EPS Environmental Services, Inc.
7237 West Devon Avenue, Chicago, Illinois 60631

North

Date: 00/26/2017

Project #:17460-0816CO#1

BARRIER CROSS-SECTION ILLUSTRATION

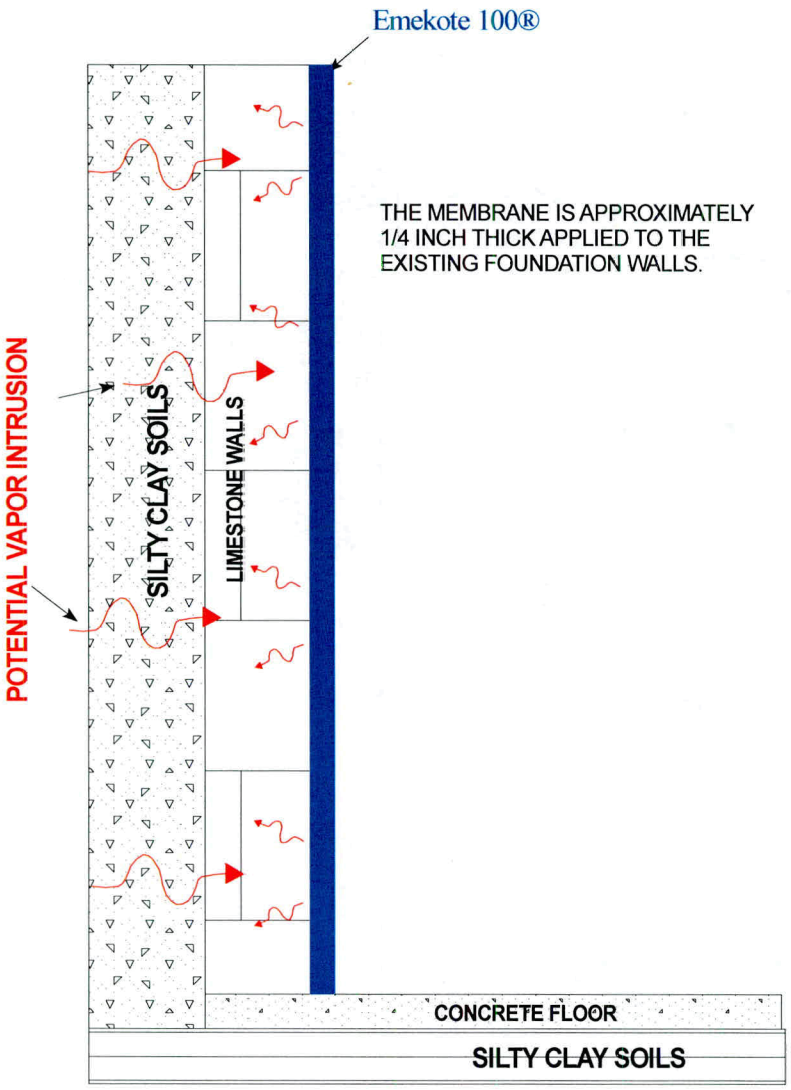


FIGURE 7 - BARRIER CROSS-SECTION

2235-2239 West Roscoe Street
Chicago, Illinois

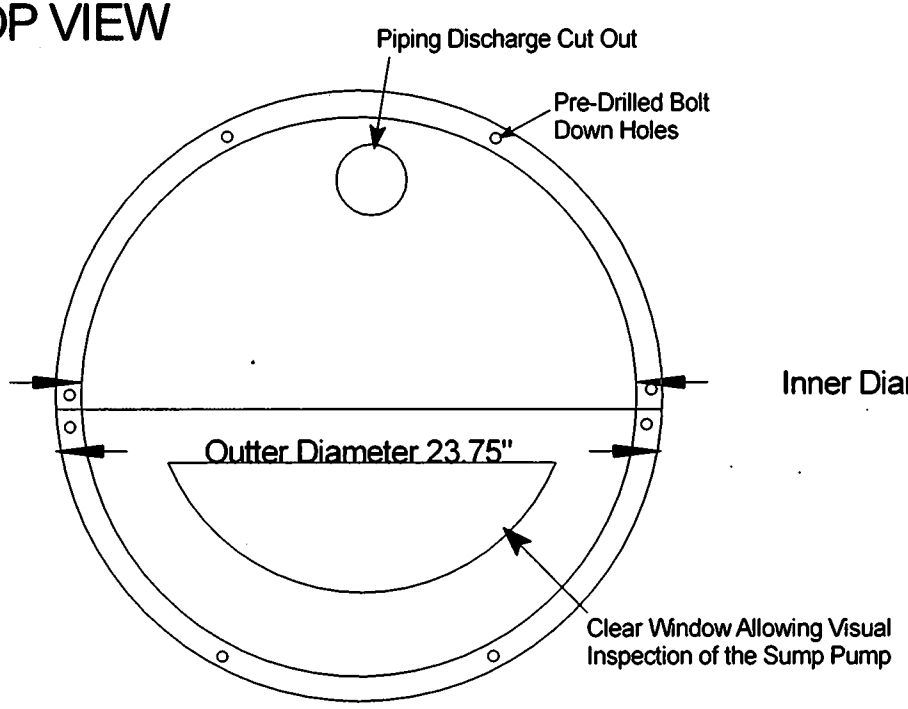
North

EPS Environmental Services, Inc.
7237 West Devon Avenue, Chicago, Illinois 60631

Date: 10/26/17

Project #:17460-0816CO#1

TOP VIEW



VERTICAL PROFILE

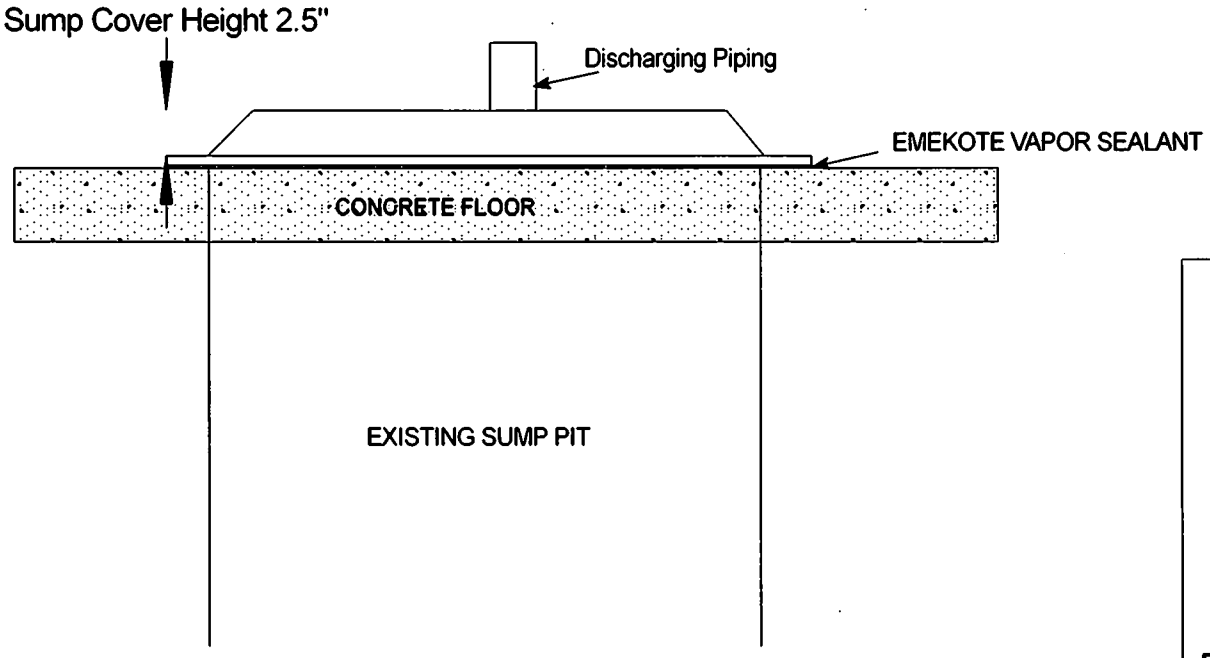


FIGURE 8 - SUMP COVER SCHEMATIC

2235-2239 West Roscoe Street
Chicago, Illinois

North

EPS Environmental Services, Inc.
7237 West Devon Avenue, Chicago, Illinois 60631

Date: 10/26/2017 Project #:17460-0816CO#1

APPENDIX 2

Site Specific Remediation Objectives Comparison Tables

Project: 2235-2239 West Roscoe Street, Chicago, Illinois
Project #: 17460-0816
Laboratory: STAT Analysis Corporation, Chicago

Table 1. Soil VOC Analytical Results

Chemical Name	Exposure Route-Specific SROs*				Soil Component of Class II GW Ingestion Route*	GP-1/2'	GP-2/8'	GP-2/16'	GP-3/6'	GP-4/4'	GP-5/4'	GP-6/4'
	Residential		*Construction Worker*									
	ingestion	inhalation	ingestion	inhalation								
					Sample dates	9/14/2016	9/14/2016	9/14/2016	9/14/2016	9/14/2016	9/14/2016	1/12/2017
VOCs												
Acetone	70,000	100,000	NRO	100,000	25	< 7.4	< 0.087	< 6.1	< 0.082	< 0.093	< 0.085	< 0.095
Benzene	12	0.8	2,300	2.2	0.17	< 0.20	< 0.0058	< 0.16	< 0.0055	< 0.0062	< 0.0057	< 0.0064
Bromodichloromethane	10	3,000	2,000	3,000	0.6	< 0.50	< 0.0058	< 0.40	< 0.0055	< 0.0062	< 0.0057	< 0.0064
Bromoform	81	53	16,000	140	0.8	< 0.50	< 0.0058	< 0.40	< 0.0055	< 0.0062	< 0.0057	< 0.0064
Bromomethane	110	10	1,000	3.9	1.2	< 0.99	< 0.012	< 0.81	< 0.011	< 0.012	< 0.011	< 0.013
2-Butanone (MEK)^	47,000	25,000	120,000	730	17	< 7.4	< 0.087	< 6.1	< 0.082	< 0.093	< 0.085	< 0.095
Carbon disulfide	7,800	720	20,000	9.0	160	< 5.0	< 0.058	< 4.0	< 0.055	< 0.062	< 0.057	< 0.064
Carbon tetrachloride	5	0.3	410	0.90	0.33	< 0.50	< 0.0058	< 0.40	< 0.0055	< 0.0062	< 0.0057	< 0.0064
Chlorobenzene	1,600	130	4,100	1.3	6.5	< 0.50	< 0.0058	< 0.40	< 0.0055	< 0.0062	< 0.0057	< 0.0064
Chloroethane^	NRO	1,500	20,000	39	NRO	< 0.99	< 0.012	< 0.81	< 0.011	< 0.012	< 0.011	< 0.013
Chloroform	100	0.3	2,000	0.76	2.9	< 0.50	< 0.0058	< 0.40	< 0.0055	< 0.0062	< 0.0057	< 0.0064
Chloromethane^	NRO	110	NRO	5	NRO	< 0.99	< 0.012	< 0.81	< 0.011	< 0.012	< 0.011	< 0.013
Dibromochloromethane	1,600	1,300	41,000	1,300	0.4	< 0.50	< 0.0058	< 0.40	< 0.0055	< 0.0062	< 0.0057	< 0.0064
1,1-Dichloroethane	7,800	1,300	200,000	130	110	< 0.50	< 0.0058	< 0.40	< 0.0055	< 0.0062	< 0.0057	< 0.0064
1,2-Dichloroethane	7	0.4	1,400	0.99	0.1	< 0.50	< 0.0058	< 0.40	< 0.0055	< 0.0062	< 0.0057	< 0.0064
1,1-Dichloroethene	3,900	290	10,000	3.0	0.3	< 0.50	< 0.0058	< 0.40	< 0.0055	< 0.0062	< 0.0057	< 0.0064
cis-1,2-Dichloroethene	780	1,200	20,000	1,200	1.1	< 0.50	< 0.0058	< 0.40	< 0.0055	< 0.0062	< 0.0057	< 0.0064
trans-1,2-Dichloroethene	1,600	3,100	41,000	3,100	3.4	< 0.50	< 0.0058	< 0.40	< 0.0055	< 0.0062	< 0.0057	< 0.0064
1,2-Dichloropropane	9	15	1,800	0.50	0.15	< 0.50	< 0.0058	< 0.40	< 0.0055	< 0.0062	< 0.0057	< 0.0064
cis-1,3-Dichloropropene	6.4	1.1	1,200	0.39	0.02	< 0.20	< 0.0023	< 0.16	< 0.0022	< 0.0025	< 0.0023	< 0.0025
trans-1,3-Dichloropropene	6.4	1.1	1,200	0.39	0.02	< 0.20	< 0.0023	< 0.16	< 0.0022	< 0.0025	< 0.0023	< 0.0025
Ethylbenzene	7,800	400	20,000	58	19	< 0.50	< 0.0058	< 0.40	< 0.0055	< 0.0062	< 0.0057	< 0.0064

* Illinois EPA Tier 1 Soil Remediation Objectives (SROs); 35 IAC 742, Appendix B, Table A (Residential)

*** ADL is the remediation objective

All results in parts per million (**mg/Kg**) based on dry weight unless noted otherwise.

NRO = No Remediation Objective

^--Non-TACO Chemical. Limits prepared by IEPA Toxicity Assessment Unit - October 30, 2012

Project: 2235-2239 West Roscoe Street, Chicago, Illinois
Project #: 17460-0816
Laboratory: STAT Analysis Corporation, Chicago

Table 1. Soil VOC Analytical Results (continued)

Chemical Name	Exposure Route-Specific SROs*				Soil Component of Class II GW Ingestion Route*	GP-1/2'	GP-2/8'	GP-2/16'	GP-3/6'	GP-4/4'	GP-5/4'	GP-6/4'
	Residential		*Construction Worker*									
	ingestion	inhalation	ingestion	inhalation								
					Sample dates	9/14/2016	9/14/2016	9/14/2016	9/14/2016	9/14/2016	9/14/2016	1/12/2017
VOCs												
2-Hexanone^	390	450	1,000	47	0.16	< 2.0	< 0.023	< 1.6	< 0.022	< 0.025	< 0.023	< 0.025
4-Methyl-2-Pentanone (MIBK)^	6,300	3,100	340	340	2.5	< 2.0	< 0.023	< 1.6	< 0.022	< 0.025	< 0.023	< 0.025
Methylene chloride	85	13	12,000	34	0.2	< 0.99	< 0.012	< 0.81	< 0.011	< 0.012	< 0.011	< 0.013
Methyl tert-butyl ether	780	8,800	2,000	140	0.32	< 0.50	< 0.0058	< 0.40	< 0.0055	< 0.0062	< 0.0057	< 0.0064
Styrene	16,000	1,500	41,000	430	18	< 0.50	< 0.0058	< 0.40	< 0.0055	< 0.0062	< 0.0057	< 0.0064
1,1,2,2-Tetrachloroethane^	3.2	0.62	620	1.7	0.0035	< 0.50	< 0.0058	< 0.40	< 0.0055	< 0.0062	< 0.0057	< 0.0064
Tetrachloroethene	12	11	2,400	28	0.3	< 0.50	< 0.0058	< 0.40	< 0.0055	< 0.0062	< 0.0057	< 0.0064
Toluene	16,000	650	410,000	42	29	< 0.50	< 0.0058	< 0.40	< 0.0055	< 0.0062	< 0.0057	< 0.0064
1,1,1-Trichloroethane	NRO	1,200	NRO	1,200	9.6	< 0.50	< 0.0058	< 0.40	< 0.0055	< 0.0062	< 0.0057	< 0.0064
1,1,2-Trichloroethane	310	1,800	8,200	1,800	0.3	< 0.50	< 0.0058	< 0.40	< 0.0055	< 0.0062	< 0.0057	< 0.0064
Trichloroethene	58	5	1,200	12	0.3	< 0.50	< 0.0058	< 0.40	< 0.0055	< 0.0062	< 0.0057	< 0.0064
Vinyl chloride	0.46	0.28	170	1.1	0.07	< 0.50	< 0.0058	< 0.40	< 0.0055	< 0.0062	< 0.0057	< 0.0064
Xylenes, Total	16,000	320	41,000	14.65**	150	< 1.5	< 0.017	< 1.2	< 0.016	< 0.019	< 0.017	< 0.019

* Illinois EPA Tier 1 Soil Remediation Objectives (SROs); 35 IAC 742, Appendix B, Table A (Residential)

*** ADL is the remediation objective

All results in parts per million (**mg/Kg**) based on dry weight unless noted otherwise.

NRO = No Remediation Objective

^--Non-TACO Chemical. Limits prepared by IEPA Toxicity Assessment Unit - October 30, 2012

**Calculated Tier 2 Value

Project: 2235-2239 West Roscoe Street, Chicago, Illinois
Project #: 17460-0816
Laboratory: STAT Analysis Corporation, Chicago

Table 1. Soil VOC Analytical Results

Chemical Name	Exposure Route-Specific SROs*				Soil Component of Class II GW Ingestion Route*	GP-7/2'	EF-4'	NB-12'	SF-6'	WF-6'	NF-2'
	Residential		*Construction Worker*								
	ingestion	inhalation	ingestion	inhalation							
					Sample dates	1/12/2017	9/14/2016	9/14/2016	9/14/2016	9/14/2016	9/14/2016
VOCs											
Acetone	70,000	100,000	NRO	100,000	25	< 0.095	< 4.7	< 0.10	< 0.078	< 5.8	< 4.9
Benzene	12	0.8	2,300	2.2	0.17	< 0.0063	< 0.13	< 0.0068	< 0.0052	< 0.16	< 0.13
Bromodichloromethane	10	3,000	2,000	3,000	0.6	< 0.0063	< 0.32	< 0.0068	< 0.0052	< 0.39	< 0.33
Bromoform	81	53	16,000	140	0.8	< 0.0063	< 0.32	< 0.0068	< 0.0052	< 0.39	< 0.33
Bromomethane	110	10	1,000	3.9	1.2	< 0.013	< 0.63	< 0.014	< 0.010	< 0.78	< 0.66
2-Butanone (MEK)^	47,000	25,000	120,000	730	17	< 0.095	< 4.7	< 0.10	< 0.078	< 5.8	< 4.9
Carbon disulfide	7,800	720	20,000	9.0	160	< 0.063	< 3.2	< 0.068	< 0.052	< 3.9	< 3.3
Carbon tetrachloride	5	0.3	410	0.90	0.33	< 0.0063	< 0.32	< 0.0068	< 0.0052	< 0.39	< 0.33
Chlorobenzene	1,600	130	4,100	1.3	6.5	< 0.0063	< 0.32	< 0.0068	< 0.0052	< 0.39	< 0.33
Chloroethane^	NRO	1,500	20,000	39	NRO	< 0.013	< 0.63	< 0.014	< 0.010	< 0.78	< 0.66
Chloroform	100	0.3	2,000	0.76	2.9	< 0.0063	< 0.32	< 0.0068	< 0.0052	< 0.39	< 0.33
Chloromethane^	NRO	110	NRO	5	NRO	< 0.013	< 0.63	< 0.014	< 0.010	< 0.78	< 0.66
Dibromochloromethane	1,600	1,300	41,000	1,300	0.4	< 0.0063	< 0.32	< 0.0068	< 0.0052	< 0.39	< 0.33
1,1-Dichloroethane	7,800	1,300	200,000	130	110	< 0.0063	< 0.32	< 0.0068	< 0.0052	< 0.39	< 0.33
1,2-Dichloroethane	7	0.4	1,400	0.99	0.1	< 0.0063	< 0.32	< 0.0068	< 0.0052	< 0.39	< 0.33
1,1-Dichloroethene	3,900	290	10,000	3.0	0.3	< 0.0063	< 0.32	< 0.0068	< 0.0052	< 0.39	< 0.33
cis-1,2-Dichloroethene	780	1,200	20,000	1,200	1.1	< 0.0063	< 0.32	< 0.0068	< 0.0052	< 0.39	< 0.33
trans-1,2-Dichloroethene	1,600	3,100	41,000	3,100	3.4	< 0.0063	< 0.32	< 0.0068	< 0.0052	< 0.39	< 0.33
1,2-Dichloropropane	9	15	1,800	0.50	0.15	< 0.0063	< 0.32	< 0.0068	< 0.0052	< 0.39	< 0.33
cis-1,3-Dichloropropene	6.4	1.1	1,200	0.39	0.02	< 0.0025	< 0.13	< 0.0027	< 0.0021	< 0.16	< 0.13
trans-1,3-Dichloropropene	6.4	1.1	1,200	0.39	0.02	< 0.0025	< 0.13	< 0.0027	< 0.0021	< 0.16	< 0.13
Ethylbenzene	7,800	400	20,000	58	19	< 0.0063	< 0.32	< 0.0068	< 0.0052	1.3	< 0.33

* Illinois EPA Tier 1 Soil Remediation Objectives (SROs); 35 IAC 742, Appendix B, Table A (Residential)

*** ADL is the remediation objective

All results in parts per million (**mg/Kg**) based on dry weight unless noted otherwise.

NRO = No Remediation Objective

^--Non-TACO Chemical. Limits prepared by IEPA Toxicity Assessment Unit - October 30, 2012

Project: 2235-2239 West Roscoe Street, Chicago, Illinois
Project #: 17460-0816
Laboratory: STAT Analysis Corporation, Chicago

Table 1. Soil VOC Analytical Results (continued)

Chemical Name	Exposure Route-Specific SROs*				Soil Component of Class II GW Ingestion Route*	GP-7/2'	EF-4'	NB-12'	SF-6'	WF-6'	NF-2'
	Residential		*Construction Worker*								
	ingestion	inhalation	ingestion	inhalation							
					Sample dates	1/12/2017	9/14/2016	9/14/2016	9/14/2016	9/14/2016	9/14/2016
VOCs											
2-Hexanone^	390	450	1,000	47	0.16	< 0.025	< 1.3	< 0.027	< 0.021	< 1.6	< 1.3
4-Methyl-2-Pentanone (MIBK)^	6,300	3,100	340	340	2.5	< 0.025	< 1.3	< 0.027	< 0.021	< 1.6	< 1.3
Methylene chloride	85	13	12,000	34	0.2	< 0.013	< 0.63	< 0.014	< 0.010	< 0.78	< 0.66
Methyl tert-butyl ether	780	8,800	2,000	140	0.32	< 0.0063	< 0.32	< 0.0068	< 0.0052	< 0.39	< 0.33
Styrene	16,000	1,500	41,000	430	18	< 0.0063	< 0.32	< 0.0068	< 0.0052	< 0.39	< 0.33
1,1,2,2-Tetrachloroethane^	3.2	0.62	620	1.7	0.0035	< 0.0063	< 0.32	< 0.0068	< 0.0052	< 0.39	< 0.33
Tetrachloroethene	12	11	2,400	28	0.3	< 0.0063	< 0.32	< 0.0068	< 0.0052	< 0.39	< 0.33
Toluene	16,000	650	410,000	42	29	< 0.0063	< 0.32	< 0.0068	< 0.0052	< 0.39	< 0.33
1,1,1-Trichloroethane	NRO	1,200	NRO	1,200	9.6	< 0.0063	< 0.32	< 0.0068	< 0.0052	< 0.39	< 0.33
1,1,2-Trichloroethane	310	1,800	8,200	1,800	0.3	< 0.0063	< 0.32	< 0.0068	< 0.0052	< 0.39	< 0.33
Trichloroethene	58	5	1,200	12	0.3	< 0.0063	< 0.32	< 0.0068	< 0.0052	< 0.39	< 0.33
Vinyl chloride	0.46	0.28	170	1.1	0.07	< 0.0063	< 0.32	< 0.0068	< 0.0052	< 0.39	< 0.33
Xylenes, Total	16,000	320	41,000	14.65**	150	< 0.019	< 0.95	< 0.020	< 0.016	8.7	< 0.99

* Illinois EPA Tier 1 Soil Remediation Objectives (SROs); 35 IAC 742, Appendix B, Table A (Residential)

*** ADL is the remediation objective

All results in parts per million (**mg/Kg**) based on dry weight unless noted otherwise.

NRO = No Remediation Objective

^--Non-TACO Chemical. Limits prepared by IEPA Toxicity Assessment Unit - October 30, 2012

**Calculated Tier 2 Value

Project: 2235-2239 West Roscoe Street, Chicago, Illinois
Project #: 17460-0816
Sampled: 9/14/2016
Laboratory: STAT Analysis Corporation, Chicago

Table 2. Soil SVOC Analytical Results

Chemical Name	Exposure Route-Specific SROs*				Soil Component of Class II GW Ingestion Route*	Background Within MSA (Chicago)**	GP-1/2'	GP-2/8'	GP-2/16'	GP-3/6'	GP-4/4'	GP-5/4'	GP-6/4'
	Residential		*Construction Worker*										
	ingestion	inhalation	ingestion	inhalation									
						Sample dates	9/14/2016	9/14/2016	9/14/2016	9/14/2016	9/14/2016	9/14/2016	1/12/2017
SVOCs													
Acenaphthene	4,700	NRO	120,000	NRO	2,900	0.09	< 0.047	< 0.041	< 0.044	< 0.039	< 0.042	< 0.041	< 0.044
Acenaphthylene	2,300	NRO	61,000	NRO	420	0.03	0.051	< 0.041	< 0.044	< 0.039	< 0.042	< 0.041	< 0.044
Aniline^	110	83	1,400	8.6	0.064	NRO	< 0.48	< 0.41	< 0.44	< 0.39	< 0.42	< 0.41	< 0.45
Anthracene	23,000	NRO	610,000	NRO	59,000	0.25	< 0.047	< 0.041	< 0.044	< 0.039	< 0.042	< 0.041	< 0.044
Benzo(a)anthracene	0.9	NRO	170	NRO	8	1.1	0.15	< 0.041	< 0.044	< 0.039	0.089	0.044	< 0.044
Benzidine^	0.003	0.009	0.54	0.02	0.000002***	NRO	< 0.47	< 0.41	< 0.44	< 0.39	< 0.42	< 0.41	< 0.44
Benzo(a)pyrene	0.09	NRO	17	NRO	82	1.3	0.19	< 0.041	< 0.044	< 0.039	0.081	0.053	< 0.044
Benzo(b)fluoranthene	0.9	NRO	170	NRO	25	1.5	0.15	< 0.041	< 0.044	< 0.039	0.087	0.049	< 0.044
Benzo(g,h,i)perylene	2,300	NRO	61,000	NRO	130,000	0.68	0.16	< 0.041	< 0.044	< 0.039	0.062	0.046	< 0.044
Benzo(k)fluoranthene	9	NRO	1,700	NRO	250	0.99	0.14	< 0.041	< 0.044	< 0.039	0.072	0.047	< 0.044
Benzoic acid	310,000	NRO	820,000	NRO	400	NRO	< 1.2	< 1.0	< 1.1	< 0.98	< 1.1	< 1.0	< 1.1
Benzyl alcohol^	7,800	NRO	61,000	NRO	3	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
bis(2-Chloroethoxy)methane	NRO	NRO	NRO	NRO	NRO	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
Bis(2-chloroethyl)ether	0.6	0.2	75	0.66	0.66***	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
Bis(2-ethylhexyl)phthalate	46	31,000	4,100	31,000	31,000	NRO	< 1.2	< 1.0	< 1.1	< 0.98	< 1.1	< 1.0	< 1.1
4-Bromophenyl phenyl ether	NRO	NRO	NRO	NRO	NRO	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
Butyl benzyl phthalate	16,000	930	410,000	930	930	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
Carbazole	32	NRO	6,200	NRO	2.8	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
4-Chloroaniline	310	NRO	820	NRO	0.7	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
4-Chloro-3-methylphenol	NRO	NRO	NRO	NRO	NRO	NRO	< 0.47	< 0.41	< 0.44	< 0.39	< 0.42	< 0.41	< 0.44
2-Chloronaphthalene^	6,300	NRO	41,000	NRO	240	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
2-Chlorophenol	390	53,000	10,000	53,000	4	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
4-Chlorophenyl phenyl ether	NRO	NRO	NRO	NRO	NRO	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
Chrysene	88	NRO	17,000	NRO	800	1.2	0.19	< 0.041	< 0.044	< 0.039	0.098	0.059	< 0.044
Dibenz(a,h)anthracene	0.09	NRO	17	NRO	7.6	0.2	0.052	< 0.041	< 0.044	< 0.039	< 0.042	< 0.041	< 0.044
Dibenzofuran^	78	NRO	820	NRO	15	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
1,2-Dichlorobenzene	7,000	560	18,000	310	43	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
1,3-Dichlorobenzene	NRO	NRO	NRO	NRO	NRO	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
1,4-Dichlorobenzene	NRO	11,000	NRO	340	11	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
3,3-Dichlorobenzidine	1	NRO	280	NRO	1.3***	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
2,4-Dichlorophenol	230	NRO	610	NRO	1	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
Diethyl phthalate	63,000	2,000	1,000,000	2,000	470	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
2,4-Dimethylphenol	1,600	NRO	41,000	NRO	9	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
Dimethyl phthalate^	NRO	NRO	20,000	NRO	NRO	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
4,6-Dinitro-2-methylphenol^	6.3	NRO	160	NRO	pH Specific	NRO	< 0.47	< 0.41	< 0.44	< 0.39	< 0.42	< 0.41	< 0.44

* Illinois EPA Tier 1 Soil Remediation Objectives (SROs); 35 IAC 742, Appendix B, Table A (Residential)

** 35 IAC Part 732 Appendix A, Table H

*** ADL is the remediation objective

All results in parts per million (**mg/Kg**) based on dry weight unless noted otherwise.

NRO = No Remediation Objective

^--Non-TACO Chemical. Limits prepared by IEPA Toxicity Assessment Unit - October 30, 2012

Project: 2235-2239 West Roscoe Street, Chicago, Illinois
Project #: 17460-0816
Sampled: 9/14/2016
Laboratory: STAT Analysis Corporation, Chicago

Table 2. Soil SVOC Analytical Results (continued)

Chemical Name	Exposure Route-Specific SROs*				Soil Component of Class II GW Ingestion Route*	Background Within MSA (Chicago)**	GP-1/2'	GP-2/8'	GP-2/16'	GP-3/6'	GP-4/4'	GP-5/4'	GP-6/4'
	Residential		*Construction Worker*										
	ingestion	inhalation	ingestion	inhalation									
						Sample dates	9/14/2016	9/14/2016	9/14/2016	9/14/2016	9/14/2016	9/14/2016	1/12/2017
SVOCs													
2,4-Dinitrophenol	160	NRO	410	NRO	3.3***	NRO	< 1.2	< 1.0	< 1.1	< 0.98	< 1.1	< 1.0	< 1.1
2,4-Dinitrotoluene	0.9	NRO	180	NRO	0.250***	NRO	< 0.047	< 0.041	< 0.044	< 0.039	< 0.042	< 0.041	< 0.044
2,6-Dinitrotoluene	0.9	NRO	180	NRO	0.260***	NRO	< 0.047	< 0.041	< 0.044	< 0.039	< 0.042	< 0.041	< 0.044
Di-N-butyl phthalate	7,800	2,300	200,000	2,300	2,300	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
Di-N-octyl phthalate	1,600	10,000	4,100	10,000	10,000	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
Fluoranthene	3,100	NRO	82,000	NRO	21,000	2.7	0.27	< 0.041	< 0.044	< 0.039	0.14	0.056	< 0.044
Fluorene	3,100	NRO	82,000	NRO	2,800	0.1	< 0.047	< 0.041	< 0.044	< 0.039	< 0.042	< 0.041	< 0.044
Hexachlorobenzene	0.4	1	78	2.6	11	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
Hexachlorobutadiene^	78	NRO	200	NRO	11	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
Hexachlorocyclopentadiene	550	10	14,000	1.1	2,200	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
Hexachloroethane	78	NRO	2,000	NRO	2.6	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
Indeno(1,2,3-cd)pyrene	0.9	NRO	170	NRO	69	0.86	0.13	< 0.041	< 0.044	< 0.039	0.054	< 0.041	< 0.044
Isophorone	15,600	4,600	410,000	46,000	8	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
2-Methylnaphthalene^	310	NRO	820	NRO	9.5	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
2-Methylphenol (o-cresol)	3,900	NRO	100,000	NRO	15	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
4-Methylphenol (p-cresol)^	7,800	100,000	4,100	3,300	3.9	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
Naphthalene	1,600	170	4,100	1.8	18	0.04	< 0.047	< 0.041	< 0.044	< 0.039	< 0.042	< 0.041	< 0.044
2-Nitroaniline^	1200	18	31,000	1.5	0.7	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
3-Nitroaniline^	NRO	NRO	200	NRO	NRO	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
4-Nitroaniline^	310	1500	2,000	52	0.14	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
2-Nitrophenol	NRO	NRO	NRO	NRO	NRO	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
4-Nitrophenol	NRO	NRO	NRO	NRO	pH Specific	NRO	< 0.47	< 0.41	< 0.44	< 0.39	< 0.42	< 0.41	< 0.44
Nitrobenzene	39	92	1,000	9.4	0.1	NRO	< 0.047	< 0.041	< 0.044	< 0.039	< 0.042	< 0.041	< 0.044
N-Nitrosodi-N-propylamine	0.09	NRO	18	NRO	0.0018***	NRO	< 0.047	< 0.041	< 0.044	< 0.039	< 0.042	< 0.041	< 0.044
n-Nitrosodimethylamine^	0.013	0.012	1.6	0.033	0.0000027***	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
N-Nitrosodiphenylamine	130	NRO	25,000	NRO	5.6	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
2, 2'-oxybis(1-Chloropropane)	NRO	NRO	NRO	NRO	NRO	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
Pentachlorophenol	3	NRO	520	NRO	0.14***	NRO	< 0.096	< 0.083	< 0.089	< 0.079	< 0.085	< 0.083	< 0.090
Phenanthrene	2,300	NRO	61,000	NRO	1,100	1.3	0.11	< 0.041	< 0.044	< 0.039	0.081	< 0.041	< 0.044
Phenol	23,000	NRO	61,000	NRO	100	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
Pyrene	2,300	NRO	61,000	NRO	21,000	1.9	0.27	< 0.041	< 0.044	< 0.039	0.13	0.063	< 0.044
Pyridine^	78	NRO	2,000	NRO	pH Specific	NRO	< 0.96	< 0.83	< 0.89	< 0.79	< 0.85	< 0.83	< 0.90
1,2,4-Trichlorobenzene	780	3,200	2,000	920	53	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
2,4,5-Trichlorophenol	7,800	NRO	200,000	NRO	1,400	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23
2,4,6-Trichlorophenol	58	200	11,000	540	0.77	NRO	< 0.24	< 0.21	< 0.23	< 0.20	< 0.22	< 0.21	< 0.23

* Illinois EPA Tier 1 Soil Remediation Objectives (SROs); 35 IAC 742, Appendix B, Table A (Residential)

** 35 IAC Part 732 Appendix A, Table H

*** ADL is the remediation objective

All results in parts per million (**mg/Kg**) based on dry weight unless noted otherwise.

NRO = No Remediation Objective

^--Non-TACO Chemical. Limits prepared by IEPA Toxicity Assessment Unit - October 30, 2012

Project: 2235-2239 West Roscoe Street, Chicago, Illinois
Project #: 17460-0816
Sampled: 9/14/2016
Laboratory: STAT Analysis Corporation, Chicago

Table 2. Soil SVOC Analytical Results

Chemical Name	Exposure Route-Specific SROs*				Soil Component of Class II GW Ingestion Route*	Background Within MSA (Chicago)**	GP-7/2'	EF-4'	NB-12'	SF-6'	WF-6'	NF-2'
	Residential		*Construction Worker*									
	ingestion	inhalation	ingestion	inhalation								
						Sample dates	1/12/2017	9/14/2016	9/14/2016	9/14/2016	9/14/2016	9/14/2016
SVOCs												
Acenaphthene	4,700	NRO	120,000	NRO	2,900	0.09	< 0.042	< 0.040	< 0.044	< 0.042	< 0.042	< 0.041
Acenaphthylene	2,300	NRO	61,000	NRO	420	0.03	< 0.042	< 0.040	< 0.044	< 0.042	< 0.042	< 0.041
Aniline^	110	83	1,400	8.6	0.064	NRO	< 0.43	< 0.40	< 0.45	< 0.42	< 0.42	< 0.41
Anthracene	23,000	NRO	610,000	NRO	59,000	0.25	< 0.042	< 0.040	< 0.044	< 0.042	< 0.042	< 0.041
Benzo(a)anthracene	0.9	NRO	170	NRO	8	1.1	< 0.042	< 0.040	< 0.044	< 0.042	< 0.042	< 0.041
Benzidine^	0.003	0.009	0.54	0.02	0.000002***	NRO	< 0.42	< 0.40	< 0.44	< 0.42	< 0.42	< 0.41
Benzo(a)pyrene	0.09	NRO	17	NRO	82	1.3	< 0.042	< 0.040	< 0.044	< 0.042	< 0.042	< 0.041
Benzo(b)fluoranthene	0.9	NRO	170	NRO	25	1.5	< 0.042	< 0.040	< 0.044	< 0.042	< 0.042	< 0.041
Benzo(g,h,i)perylene	2,300	NRO	61,000	NRO	130,000	0.68	< 0.042	< 0.040	< 0.044	< 0.042	< 0.042	< 0.041
Benzo(k)fluoranthene	9	NRO	1,700	NRO	250	0.99	< 0.042	< 0.040	< 0.044	< 0.042	< 0.042	< 0.041
Benzoic acid	310,000	NRO	820,000	NRO	400	NRO	< 1.1	< 1.0	< 1.1	< 1.1	< 1.1	< 1.0
Benzyl alcohol^	7,800	NRO	61,000	NRO	3	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
bis(2-Chloroethoxy)methane	NRO	NRO	NRO	NRO	NRO	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
Bis(2-chloroethyl)ether	0.6	0.2	75	0.66	0.66***	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
Bis(2-ethylhexyl)phthalate	46	31,000	4,100	31,000	31,000	NRO	< 1.1	< 1.0	< 1.1	< 1.1	< 1.1	< 1.0
4-Bromophenyl phenyl ether	NRO	NRO	NRO	NRO	NRO	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
Butyl benzyl phthalate	16,000	930	410,000	930	930	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
Carbazole	32	NRO	6,200	NRO	2.8	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
4-Chloroaniline	310	NRO	820	NRO	0.7	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
4-Chloro-3-methylphenol	NRO	NRO	NRO	NRO	NRO	NRO	< 0.42	< 0.40	< 0.44	< 0.42	< 0.42	< 0.41
2-Chloronaphthalene^	6,300	NRO	41,000	NRO	240	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
2-Chlorophenol	390	53,000	10,000	53,000	4	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
4-Chlorophenyl phenyl ether	NRO	NRO	NRO	NRO	NRO	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
Chrysene	88	NRO	17,000	NRO	800	1.2	< 0.042	< 0.040	< 0.044	< 0.042	< 0.042	< 0.041
Dibenz(a,h)anthracene	0.09	NRO	17	NRO	7.6	0.2	< 0.042	< 0.040	< 0.044	< 0.042	< 0.042	< 0.041
Dibenzofuran^	78	NRO	820	NRO	15	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
1,2-Dichlorobenzene	7,000	560	18,000	310	43	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
1,3-Dichlorobenzene	NRO	NRO	NRO	NRO	NRO	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
1,4-Dichlorobenzene	NRO	11,000	NRO	340	11	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
3,3-Dichlorobenzidine	1	NRO	280	NRO	1.3***	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
2,4-Dichlorophenol	230	NRO	610	NRO	1	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
Diethyl phthalate	63,000	2,000	1,000,000	2,000	470	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
2,4-Dimethylphenol	1,600	NRO	41,000	NRO	9	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
Dimethyl phthalate^	NRO	NRO	20,000	NRO	NRO	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
4,6-Dinitro-2-methylphenol^	6.3	NRO	160	NRO	pH Specific	NRO	< 0.42	< 0.40	< 0.44	< 0.42	< 0.42	< 0.41

* Illinois EPA Tier 1 Soil Remediation Objectives (SROs); 35 IAC 742, Appendix B, Table A (Residential)

** 35 IAC Part 732 Appendix A, Table H

*** ADL is the remediation objective

All results in parts per million (**mg/Kg**) based on dry weight unless noted otherwise.

NRO = No Remediation Objective

^--Non-TACO Chemical. Limits prepared by IEPA Toxicity Assessment Unit - October 30, 2012

Project: 2235-2239 West Roscoe Street, Chicago, Illinois
Project #: 17460-0816
Sampled: 9/14/2016
Laboratory: STAT Analysis Corporation, Chicago

Table 2. Soil SVOC Analytical Results (continued)

Chemical Name	Exposure Route-Specific SROs*				Soil Component of Class II GW Ingestion Route*	Background Within MSA (Chicago)**	GP-7/2'	EF-4'	NB-12'	SF-6'	WF-6'	NF-2'
	Residential		*Construction Worker*									
	ingestion	inhalation	ingestion	inhalation								
						Sample dates	1/12/2017	9/14/2016	9/14/2016	9/14/2016	9/14/2016	9/14/2016
SVOCs												
2,4-Dinitrophenol	160	NRO	410	NRO	3.3***	NRO	< 1.1	< 1.0	< 1.1	< 1.1	< 1.1	< 1.0
2,4-Dinitrotoluene	0.9	NRO	180	NRO	0.250***	NRO	< 0.042	< 0.040	< 0.044	< 0.042	< 0.042	< 0.041
2,6-Dinitrotoluene	0.9	NRO	180	NRO	0.260***	NRO	< 0.042	< 0.040	< 0.044	< 0.042	< 0.042	< 0.041
Di-N-butyl phthalate	7,800	2,300	200,000	2,300	2,300	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
Di-N-octyl phthalate	1,600	10,000	4,100	10,000	10,000	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
Fluoranthene	3,100	NRO	82,000	NRO	21,000	2.7	< 0.042	< 0.040	< 0.044	< 0.042	< 0.042	< 0.041
Fluorene	3,100	NRO	82,000	NRO	2,800	0.1	< 0.042	< 0.040	< 0.044	< 0.042	< 0.042	< 0.041
Hexachlorobenzene	0.4	1	78	2.6	11	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
Hexachlorobutadiene^	78	NRO	200	NRO	11	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
Hexachlorocyclopentadiene	550	10	14,000	1.1	2,200	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
Hexachloroethane	78	NRO	2,000	NRO	2.6	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
Indeno(1,2,3-cd)pyrene	0.9	NRO	170	NRO	69	0.86	< 0.042	< 0.040	< 0.044	< 0.042	< 0.042	< 0.041
Isophorone	15,600	4,600	410,000	46,000	8	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
2-Methylnaphthalene^	310	NRO	820	NRO	9.5	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
2-Methylphenol (o-cresol)	3,900	NRO	100,000	NRO	15	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
4-Methylphenol (p-cresol)^	7,800	100,000	4,100	3,300	3.9	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
Naphthalene	1,600	170	4,100	1.8	18	0.04	< 0.042	< 0.040	< 0.044	< 0.042	< 0.042	< 0.041
2-Nitroaniline^	1200	18	31,000	1.5	0.7	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
3-Nitroaniline^	NRO	NRO	200	NRO	NRO	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
4-Nitroaniline^	310	1500	2,000	52	0.14	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
2-Nitrophenol	NRO	NRO	NRO	NRO	NRO	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
4-Nitrophenol	NRO	NRO	NRO	NRO	pH Specific	NRO	< 0.42	< 0.40	< 0.44	< 0.42	< 0.42	< 0.41
Nitrobenzene	39	92	1,000	9.4	0.1	NRO	< 0.042	< 0.040	< 0.044	< 0.042	< 0.042	< 0.041
N-Nitrosodi-N-propylamine	0.09	NRO	18	NRO	0.0018***	NRO	< 0.042	< 0.040	< 0.044	< 0.042	< 0.042	< 0.041
n-Nitrosodimethylamine^	0.013	0.012	1.6	0.033	0.0000027***	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
N-Nitrosodiphenylamine	130	NRO	25,000	NRO	5.6	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
2, 2'-oxybis(1-Chloropropane)	NRO	NRO	NRO	NRO	NRO	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
Pentachlorophenol	3	NRO	520	NRO	0.14***	NRO	< 0.086	< 0.081	< 0.090	< 0.085	< 0.085	< 0.083
Phenanthrene	2,300	NRO	61,000	NRO	1,100	1.3	< 0.042	< 0.040	< 0.044	< 0.042	< 0.042	< 0.041
Phenol	23,000	NRO	61,000	NRO	100	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
Pyrene	2,300	NRO	61,000	NRO	21,000	1.9	< 0.042	< 0.040	< 0.044	< 0.042	< 0.042	< 0.041
Pyridine^	78	NRO	2,000	NRO	pH Specific	NRO	< 0.86	< 0.81	< 0.90	< 0.85	< 0.85	< 0.83
1,2,4-Trichlorobenzene	780	3,200	2,000	920	53	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
2,4,5-Trichlorophenol	7,800	NRO	200,000	NRO	1,400	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21
2,4,6-Trichlorophenol	58	200	11,000	540	0.77	NRO	< 0.22	< 0.20	< 0.23	< 0.22	< 0.22	< 0.21

* Illinois EPA Tier 1 Soil Remediation Objectives (SROs); 35 IAC 742, Appendix B, Table A (Residential)

** 35 IAC Part 732 Appendix A, Table H

*** ADL is the remediation objective

All results in parts per million (**mg/Kg**) based on dry weight unless noted otherwise.

NRO = No Remediation Objective

^--Non-TACO Chemical. Limits prepared by IEPA Toxicity Assessment Unit - October 30, 2012

Project: 2235-2239 West Roscoe Street, Chicago, Illinois
Project #: 17460-0816
Sampled: 9/26/2016
Laboratory: STAT Analysis Corporation, Chicago

Table 3. Water VOC Analytical Results

Chemical Name	GROs Class II (mg/L)	MW-1	MW-2
VOCs			
Acetone	6.3	0.030	< 0.020
Benzene	0.025	< 0.0050	< 0.0050
Bromodichloromethane	0.0002	< 0.0050	< 0.0050
Bromoform	0.001	< 0.0050	< 0.0050
Bromomethane	0.049	< 0.010	< 0.010
2-Butanone (MEK)^	4.2	< 0.020	< 0.020
Carbon disulfide	3.5	< 0.010	< 0.010
Carbon tetrachloride	0.025	< 0.0050	< 0.0050
Chlorobenzene	0.5	< 0.0050	< 0.0050
Chloroethane	NRO	< 0.010	< 0.010
Chloroform	0.001	< 0.0050	< 0.0050
Chloromethane	NRO	< 0.010	< 0.010
Dibromochloromethane	0.14	< 0.0050	< 0.0050
1,1-Dichloroethane	3.5	< 0.0050	< 0.0050
1,2-Dichloroethane	0.025	< 0.0050	< 0.0050
1,1-Dichloroethene	0.035	< 0.0050	< 0.0050
cis-1,2-Dichloroethene	0.2	< 0.0050	< 0.0050
trans-1,2-Dichloroethene	0.5	< 0.0050	< 0.0050
1,2-Dichloropropane	0.025	< 0.0050	< 0.0050
cis-1,3-Dichloropropene	0.005	< 0.0010	< 0.0010
trans-1,3-Dichloropropene	0.005	< 0.0010	< 0.0010
Ethylbenzene	1.0	< 0.0050	< 0.0050

* Illinois EPA Tier 1 Groundwater Remediation Objectives (GROs); 35 IAC 742, Appendix B, Table E

** ADL is the remediation objective

All results in parts per million (**mg/L**) unless noted otherwise

NRO = No Remediation Objective

^--Non-TACO Chemical. Limits prepared by IEPA Toxicity Assessment Unit -October 30, 2012

Project:	**2235-2239 West Roscoe Street, Chicago, Illinois**
Project #:	**17460-0816**
Sampled:	**9/26/2016**
Laboratory:	**STAT Analysis Corporation, Chicago**

Table 3. Water VOC Analytical Results (continued)

Chemical Name	GROs Class II (mg/L)	MW-1	MW-2
VOCs			
2-Hexanone	0.035	< 0.020	< 0.020
4-Methyl-2-Pentanone (MIBK)^	0.56	< 0.020	< 0.020
Methylene chloride	0.05	< 0.0050	< 0.0050
Methyl tert-butyl ether	0.07	< 0.0050	< 0.0050
Styrene	0.5	< 0.0050	< 0.0050
1,1,2,2-Tetrachloroethane^	0.0043	< 0.0050	< 0.0050
Tetrachloroethene	0.025	< 0.0050	< 0.0050
Toluene	2.5	< 0.0050	< 0.0050
1,1,1-Trichloroethane	1.0	< 0.0050	< 0.0050
1,1,2-Trichloroethane	0.05	< 0.0050	< 0.0050
Trichloroethene	0.025	< 0.0050	< 0.0050
Vinyl chloride	0.01	< 0.0020	< 0.0020
Xylenes, Total	10.0	< 0.015	< 0.015

* Illinois EPA Tier 1 Groundwater Remediation Objectives (GROs); 35 IAC 742, Appendix B, Table E

** ADL is the remediation objective

All results in parts per million (**mg/L**) unless noted otherwise

NRO = No Remediation Objective

^--Non-TACO Chemical. Limits prepared by IEPA Toxicity Assessment Unit -October 30, 2012

Project: 2235-2239 West Roscoe Street, Chicago, Illinois
Project #: 17460-0816
Sampled: 9/26/2016
Laboratory: STAT Analysis Corporation, Chicago

Table 4. Water SVOC Analytical Results

Chemical Name	GRO (mg/L)* Class II	MW-1	MW-2
SVOCs			
Aniline^	0.023	< 0.0050	< 0.025
Benzidine^	0.00000037***	< 0.0050	< 0.025
Benzoic acid	28	< 0.025	< 0.12
Benzyl alcohol^	0.7	< 0.0050	< 0.025
Bis(2-chloroethoxy)methane	NRO	< 0.0050	< 0.025
Bis(2-chloroethyl)ether	0.01	< 0.0050	< 0.025
Bis(2-ethylhexyl)phthalate	0.06	< 0.0050	0.38
4-Bromophenyl phenyl ether	NRO	< 0.0050	< 0.025
Butyl benzyl phthalate	7.0	< 0.0050	< 0.025
Carbazole	NRO	< 0.00010	< 0.00050
4-Chloroaniline	0.028	< 0.0050	< 0.025
2,4-Dinitrotoluene	0.00002	< 0.00010	< 0.00050
4-Chloro-3-methylphenol	NRO	< 0.0050	< 0.025
2,6-Dinitrotoluene	0.00031***	< 0.00010	< 0.00050
2-Chloronaphthalene^	3	< 0.0050	< 0.025
2-Chlorophenol	0.035*	< 0.0050	< 0.025
N-Nitrosodi-n-propylamine	0.0018	< 0.00010	< 0.00050
4-Chlorophenyl phenyl ether	NRO	< 0.0050	< 0.025
Nitrobenzene	0.0035	< 0.0010	< 0.0050
Pentachlorophenol	0.005	< 0.00050	< 0.0025
Dibenzofuran^	0.035	< 0.0050	< 0.025
1,2-Dichlorobenzene	1.5	< 0.0050	< 0.025
1,3-Dichlorobenzene	NRO	< 0.0050	< 0.025
1,4-Dichlorobenzene	0.375	< 0.0050	< 0.025
3,3´-Dichlorobenzidine	0.1	< 0.010	< 0.050
2,4-Dichlorophenol	0.021	< 0.0050	< 0.025
Diethyl phthalate	5.6	< 0.0050	< 0.025
2,4-Dimethylphenol	0.14	< 0.025	< 0.12
Dimethyl phthalate	NRO	< 0.0050	< 0.025
4,6-Dinitro-2-methylphenol	NRO	< 0.025	< 0.12

* Illinois EPA Tier 1 Groundwater Remediation Objectives (GROs; 35 IAC 742, Appendix B, Table E)

*** ADL is the remediation objective

All results in parts per million (**mg/L**) unless noted otherwise.

NRO = No Remediation Objective

^--Non-TACO Chemical. Limits prepared by IEPA Toxicity Assessment Unit - October 31, 2012

Project: 2235-2239 West Roscoe Street, Chicago, Illinois
Project #: 17460-0816
Sampled: 9/26/2016
Laboratory: STAT Analysis Corporation, Chicago

Table 4. Water SVOC Analytical Results (continued)

Chemical Name	GRO (mg/L)* Class II	MW-1	MW-2
SVOCs			
2,4-Dinitrophenol	0.014	< 0.025	< 0.12
Di-n-butyl phthalate	3.5	< 0.0050	< 0.025
Di-n-octyl phthalate	0.7	< 0.0050	< 0.025
Hexachlorobenzene	0.0003***	< 0.0050	< 0.025
Hexachlorobutadiene^	0.035	< 0.0050	< 0.025
Hexachlorocyclopentadiene	0.5	< 0.0050	< 0.025
Hexachloroethane	0.035	< 0.0050	< 0.025
Isophorone	1.4	< 0.0050	< 0.025
2-Methylnaphthalene^	0.14	< 0.0050	0.078
2-Methylphenol (o-cresol)	0.35	< 0.0050	< 0.025
4-Methylphenol (p-cresol)^	0.7	< 0.0050	< 0.025
2-Nitroaniline^	0.105	< 0.025	< 0.12
3-Nitroaniline	NRO	< 0.025	< 0.12
4-Nitroaniline^	0.028	< 0.025	< 0.12
2-Nitrophenol	NRO	< 0.0050	< 0.025
4-Nitrophenol	NRO	< 0.025	< 0.12
Nitrobenzene	0.0035	< 0.0010	< 0.0050
N-Nitrosodi-n-propylamine	0.0018	< 0.0050	< 0.025
N-Nitrosodimethylamine^	0.0006***	< 0.0050	< 0.025
N-Nitrosodiphenylamine	0.016	< 0.0050	< 0.025
2, 2'-oxybis(1-Chloropropane)	NRO	< 0.0050	< 0.025
Pentachlorophenol	0.005	< 0.0050	< 0.025
Phenol	0.1	< 0.0050	< 0.025
Pyridine^	0.007	< 0.0050	< 0.025
1,2,4-Trichlorobenzene	0.7	< 0.0050	< 0.025
2,4,5-Trichlorophenol	pH Specific	< 0.010	< 0.050
2,4,6-Trichlorophenol	pH Specific	< 0.0050	< 0.025

* Illinois EPA Tier 1 Groundwater Remediation Objectives (GROs; 35 IAC 742, Appendix B, Table E)

*** ADL is the remediation objective

All results in parts per million (**mg/L**) unless noted otherwise.

NRO = No Remediation Objective

^--Non-TACO Chemical. Limits prepared by IEPA Toxicity Assessment Unit - October 31, 2012

Project: 2235-2239 West Roscoe Street, Chicago, Illinois
Project #: 17460-0816
Laboratory: STAT Analysis Corporation, Chicago

Table 5. Water PNA Analytical Results

Chemical Name	GRO (mg/L)* Class II	MW-1	MW-2	MW-2
	Date Sampled	9/26/2016	9/26/2016	10/7/2016
PNAs				
Acenaphthene	2.1	< 0.0010	< 0.0050	0.0010
Acenaphthylene^	1.05	< 0.0010	< 0.0050	< 0.0010
Anthracene	10.5	< 0.0010	0.0054	< 0.0010
Benzo(a)anthracene	0.00065	< 0.00010	0.0034	0.00050
Benzo(a)pyrene	0.002	< 0.00010	0.0022	0.00038
Benzo(b)fluoranthene	0.0009	< 0.00010	0.0018	0.00036
Benzo(g,h,i)perylene^	1.05	< 0.0010	< 0.0050	< 0.0010
Benzo(k)fluoranthene	0.00085	< 0.00010	0.0017	0.00028
Chrysene	0.0075	< 0.00010	0.0030	0.00064
Dibenzo(a,h)anthracene	0.0015	< 0.00010	< 0.00050	< 0.00010
Fluoranthene	1.4	< 0.0010	0.011	0.0020
Fluorene	1.4	< 0.0010	< 0.0050	< 0.0010
Indeno(1,2,3-cd)pyrene	0.00215	< 0.00010	0.00050	0.00016
Naphthalene	0.22	< 0.0010	< 0.0050	< 0.0010
Phenanthrene^	1.05	< 0.0010	0.019	0.0036
Pyrene	1.05	< 0.0010	0.014	0.0026

* Illinois EPA Tier 1 Groundwater Remediation Objectives (GROs; 35 IAC 742, Appendix B, Table E)

All results in parts per million (**mg/L**) unless noted otherwise.

^--Non-TACO Chemical. Limits prepared by IEPA Toxicity Assessment Unit - October 30, 2012

Project: 2235-2239 West Roscoe Street, Chicago, Illinois
Project #: 17460-0816
Laboratory: STAT Analysis Corporation, Chicago

Table 6. Soil Gas Analytical Results

Chemical Name	*Residential*			*Construction Worker Outdoor*	SG-1	SG-2	SG-3
	Outdoor	Indoor					
		Advection/ Diffusion	Diffusion only				
		Soil Gas	Soil Gas				
				Sample dates	9/14/2016	9/14/2016	1/17/2017
Compounds							
Acetone	750,000	750,000	750,000	750,000	< 0.23	0.40	0.81
Benzene	420	0.37	41	1,100	0.0048	< 0.024	0.0029
Bromodichloromethane	450,000	450,000	450000	450,000	< 0.0025	< 0.052	< 0.0024
Bromoform	1,800	11	1,800	4,900	< 0.010	< 0.21	< 0.0095
2-Butanone (MEK)	380,000	6,400	380,000	15,000	0.022	< 0.060	0.0097
Carbon disulfide	1,500,000	780	81,000	48,000	< 0.0012	< 0.025	0.0029
Carbon tetrachloride	290	0.21	24	770	< 0.0025	< 0.052	< 0.0024
Chlorobenzene	36,000	69	8,300	3,700	< 0.0017	< 0.036	< 0.0016
Chlorodibromomethane	57,000	57,000	57,000	150	< 0.0033	< 0.067	< 0.0031
Chloroform	110	0.11	12	290	< 0.0019	< 0.040	< 0.0018
1,2-Dibromoethane	2.90	0.01	1.10	7.9	< 0.0029	< 0.060	< 0.0027
1,2-Dichlorobenzene	1,000	290	11,000	6,700	< 0.0023	< 0.048	< 0.0022
1,4-Dichlorobenzene	8,400	1,200	8,400	6,400	< 0.0023	< 0.048	< 0.0022
Dichlorodifluoromethane	890,000	270	32,000	92,000	< 0.0019	< 0.040	0.0021
1,1-Dichloroethane	870,000	690	81,000	90,000	< 0.0015	< 0.032	< 0.0015
1,2-Dichloroethane	67	0.099	10	180	0.0044	< 0.032	< 0.0015
1,1-Dichloroethene	520,000	240	27,000	5,300	< 0.0015	< 0.032	< 0.0015
cis-1,2-Dichloroethylene	1,100,000	1,100,000	1,100,000	1,100,000	0.022	< 0.032	0.012
trans-1,2-Dichloroethylene	120,000	85	10,000	12,000	< 0.0015	< 0.032	< 0.0015
1,2-Dichloropropane	240	0.31	36	110	< 0.0017	< 0.036	< 0.0016
cis-1,3-Dichloropropene	1,900	0.9	0.14	1,400	< 0.0017	< 0.036	< 0.0016
trans 1,3-Dichloropropylene	1,900	0.9	110	1,400	< 0.0017	< 0.036	< 0.0016
1,4-Dioxane	16	0.22	2.9	42	< 0.0035	< 0.071	< 0.0033
Ethylbenzene	59,000	1.3	150	8,500	0.0033	0.050	0.016
Bromomethane	NRO	NRO	NRO	NRO	< 0.0036	< 0.075	< 0.0035
Methyl tert-butyl ether	1,200,000	3,700	420,000	23,000	< 0.0013	< 0.028	< 0.0013
Isopropyl Alcohol	NRO	NRO	NRO	NRO	0.29	0.14	0.31

* Illinois EPA Tier 1 Soil Gas Remediation Objectives (SGROs); 35 IAC 742, Appendix B, Tables G, H, I

Results in mg/m^3

NRO - No Remediation Objective

Project: 2235-2239 West Roscoe Street, Chicago, Illinois
Project #: 17460-0816
Laboratory: STAT Analysis Corporation, Chicago

Table 6. Soil Gas Analytical Results (continued)

Chemical Name	*Residential*			*Construction Worker Outdoor*	SG-1	SG-2	SG-3
	Outdoor	Indoor					
		Advection/ Diffusion	Diffusion only				
		Soil Gas	Soil Gas				
				Sample dates	9/14/2016	9/14/2016	1/17/2017
Compounds							
Methylene chloride	6,100	5.6	590	5,100	< 0.013	< 0.27	< 0.013
Naphthalene	560	0.11	14	5.8	0.0055	< 0.040	0.0030
Styrene	34,000	1,400	34,000	16,000	0.0028	< 0.036	0.0024
Tetrachloroethene	360	0.55	66	970	0.35	< 0.056	0.015
Toluene	140,000	6,200	140,000	50,000	0.0098	< 0.032	0.011
1,2,4-Trichlorobenzene	1,000	5.4	800	110	< 0.0029	< 0.060	< 0.0027
1,1,1-Trichloroethane	870,000	6,600	770,000	89,000	< 0.0021	< 0.044	< 0.0020
1,1,2-Trichloroethane	170,000	170,000	4,400	170,000	< 0.0021	< 0.044	< 0.0020
Trichloroethene	360	1.5	180	1,500	0.036	< 0.044	0.0029
Trichlorofluoromethane	2,100,000	860	97000	220,000	< 0.0021	< 0.044	< 0.0020
Vinyl Acetate	160,000	250	28,000	1,600	< 0.013	< 0.28	< 0.013
Vinyl chloride	780	0.29	30	3,000	< 0.00096	< 0.020	< 0.00091
o-xylene	41,000	120	14,000	2,600	0.0048	< 0.036	0.018
m,p-xylene	52,000	140	17,000	3,100	0.013	< 0.067	0.057
Xylenes (total)	49,000	140	17,000	2,900	0.018	< 0.10	0.075

* Illinois EPA Tier 1 Soil Gas Remediation Objectives (SGROs); 35 IAC 742, Appendix B, Tables G, H, I

Results in mg/m^3

NRO - No Remediation Objective

Project:	**2235-2239 West Roscoe Street, Chicago, Illinois**
Project #:	**17460-0816**
Sampled:	**1/17/2017**
Laboratory:	**STAT Analysis Corporation, Chicago**

Table 7. Soil Gas Analytical Results (Indoor Air Comparison)

Chemical Name	*Indoor Air Remediation Objectives*	SG-3
	Residential	
Compounds		
Acetone	32	0.81
Benzene	0.00031	**0.0029**
Bromodichloromethane	0.000066	< 0.0024
Bromoform	0.0022	< 0.0095
2-Butanone	5.2	0.0097
Carbon disulfide	0.3	0.0029
Carbon tetrachloride	0.00041	< 0.0024
Chlorobenzene	0.052	< 0.0016
Dibromochloromethane	NRO	< 0.0031
Chloroform	0.00011	< 0.0018
1,2-Dibromoethane	0.0000041	< 0.0027
1,2-Dichlorobenzene	0.21	< 0.0022
1,4-Dichlorobenzene	0.00022	< 0.0022
Dichlorodifluoromethane	0.1	0.0021
1,1-Dichloroethane	0.52	< 0.0015
1,2-Dichloroethane	0.000094	< 0.0015
1,1-Dichloroethene	0.21	< 0.0015
cis-1,2-Dichloroethene	NRO	0.012
trans-1,2-Dichloroethene	0.063	< 0.0015
1,2-Dichloropropane	0.00024	< 0.0016
cis-1,3-Dichloropropene	0.00061	< 0.0016
trans-1,3-Dichloropropene	0.00061	< 0.0016
1,4-Dioxane	0.00032	< 0.0033
Ethylbenzene	0.00097	**0.016**
Bromomethane	NRO	< 0.0035
Methyl tert-butyl ether	3.1	< 0.0013

* Illinois EPA Tier 1 Indoor Air Remediation Objectives Calculated using J&E1 and J&E2

Results in mg/m^3 for air

NRO = No Remediation Objective

Results in **Bold/Shaded** indicate concentrations exceeding most stringent Tier 1 Indoor Air Remediation Objective

Project:	**2235-2239 West Roscoe Street, Chicago, Illinois**
Project #:	**17460-0816**
Sampled:	**1/17/2017**
Laboratory:	**STAT Analysis Corporation, Chicago**

Table 7. Soil Gas Analytical Results (Indoor Air Comparison)

Chemical Name	*Indoor Air Remediation Objectives*	SG-3
	Residential	
Compounds		
Methylene chloride	0.24	< 0.013
Naphthalene	0.000072	**0.0030**
Styrene	1	0.0024
Tetrachloroethene	0.0094	**0.015**
Toluene	5.2	0.011
1,2,4-Trichlorobenzene	0.0021	< 0.0027
1,1,1-Trichloroethane	5.2	< 0.0020
1,1,2-Trichloroethane	0.00021	< 0.0020
Trichloroethene	0.00059	**0.0029**
Trichlorofluoromethane	0.73	< 0.0020
Vinyl acetate	0.21	< 0.013
Vinyl chloride	0.00028	< 0.00091
o-Xylene	0.1	0.018
m,p-Xylene	0.1	0.057
Xylenes, Total	0.1	0.075

* Illinois EPA Tier 1 Indoor Air Remediation Objectives Calculated using J&E1 and J&E2

Results in mg/m^3 for air

NRO = No Remediation Objective

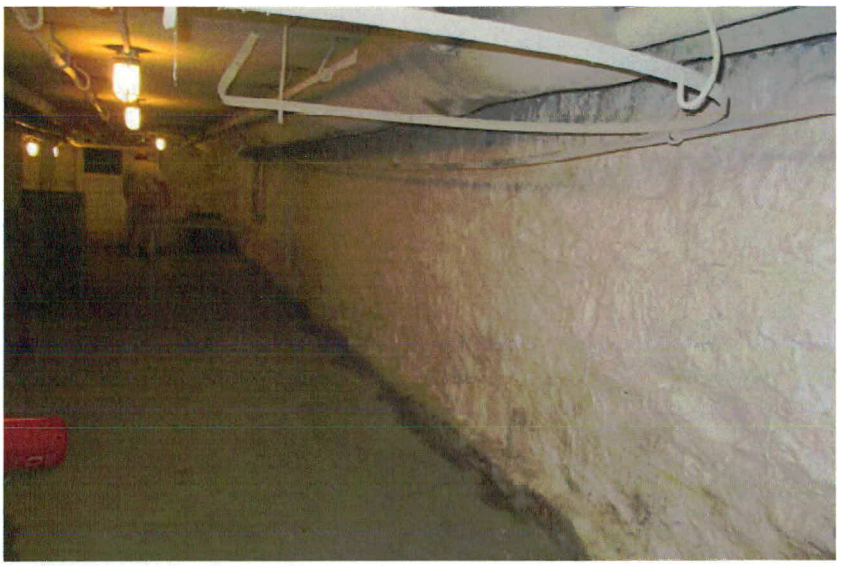
Results in **Bold/Shaded** indicate concentrations exceeding most stringent Tier 1 Indoor Air Remediation Objective

APPENDIX 3

Photographic Documentation of the Sealed Walls and SSD System

Right and Below:

Views of EMOCOTE Sealant
on Limestone Walls in Basement
of 2235 Site Building



EPS Environmental Services, Inc.

Project #: 17460-0816CO#1

2235-2239 West Roscoe Street
Chicago, Illinois

Right: View of EMOCOTE
Sealant on Limestone Walls
in Basement of 2235 Site Building

Right and Below:

Views of Suction Pits in Basement

Below: View of One Suction Pit
Protruding from the Basement Floor.

EPS Environmental Services, Inc.

Project #: 17460-0816CO#1

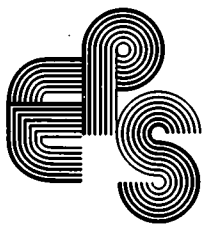
2235-2239 West Roscoe Street
Chicago, Illinois

Right: View of One
Suction Pit in Basement

Right: View of SSD
System Manometer

Below: View of SSD Exhaust Piping
Extruding from the Basement

Right: View of Exhaust Piping



APPENDIX 4

EMECOLE® Product Information

EMECOLE
P.O. Box 7486, Romeoville, IL 60446
800-844-2713 815-372-2493
www.emecole.com

EmeKote 100

CEMENT BASED COATING FOR CONCRETE & MASONRY

GENERAL DESCRIPTION

EmeKote 100 is a blended Portland cement based compound formulated to fill and seal vertical, overhead, and non-traffic bearing horizontal concrete and masonry surfaces. EmeKote 100 is used on interior or exterior, above or below grade where a seamless, breathable, coating is required. Typical applications include: foundations, concrete and masonry walls, parapets, median barriers, water tanks and reservoirs, tunnels, cisterns, retaining walls and basements. EmeKote 100 may also be used to hide blemishes and surface defects in architectural concrete. COLOR: gray

BENEFITS

Cured coating becomes an integral part of the wall or substrate...Exhibits good chemical resistance.

COMPOSITION

Cements selected and finely graded aggregates, proprietary waterproofing agents and surface rheology modifiers.

TECHNICAL DATA: Complies with Federal Specification TT-P21 Type I Class A

WORKING AND PERFORMANCE PROPERTIES @ 70° F (21° C) –APPROXIMATE VALUES:

Density (Wet mix) per ASTM C 138:	130 lbs./cu.ft. (2.08 kg. /cu. me.)
Working time (pot life):	45-90 minutes
Yield – for a base coat @ 1/16" (1.6 mm):	225 sq. ft / 5 gal pail (50 Lbs.) (20.9 sq. me ./ 22.7 kg)
Yield – for a topcoat @ 1/32" (0.8 mm):	450 sq. ft / 5 gal pail (50 Lbs.) (41.8 sq. me ./ 22.7 kg)
Coverage from above applications:	150 sq. ft / 5 gal pail (50 Lbs.) (13.9 sq. me ./ 22.7 kg)

DIRECTIONS FOR USE

SURFACE PREPARATION:

Surfaces to be coated must be structurally sound, clean and free of dirt, dust, oil, paint and all contaminates that could contribute to loss of bond of EmeKote 100 to the substrate. Roughen or blast extremely smooth surfaces such as precast or cast-in-place concrete to ensure good mechanical adhesion of EmeKote 100. New concrete and masonry surfaces must be cured 28 days. Repair all surface defects, water leaks, cracks and voids prior to applying EmeKote 100. Dampen the surface with water immediately before the application of EmeKote 100.

MIXING:

Mechanically mix EmeKote 100 using a slow speed motor and paddle mixer for best results. Each 5 gal. pail (50 lbs.) of EmeKote 100 will require 2.0 gallons of water for proper consistency (mix only half of the 5 gal. pail to 1 gal of water at a time / do not mix 2nd half until needed). Mechanically mix for 2-3 minutes, until lump free and a smooth "pancake batter" consistency is obtained. Allow the mixed EmeKote 100 to "fatten" for 5-10 minutes. If the material is too thick, adjust to a brush consistency by adding additional water and re-mix.

APPLICATION:

Dampen the entire surface with water immediately before the application of EmeKote 100. Apply EmeKote 100 mixture with either a mason's hand brush with stiff bristles, a larger push broom of the same bristle type, by use of textured spray equipment, or by trowel. Spray applications of the first coat will require back brushing or brooming to properly fill all voids and achieve uniformity. Apply enough material to fill the voids, placing the material into the substrate using horizontal strokes for coating consistency. It is important to work the first coat thoroughly into the substrate to completely fill and cover all voids, holes, and non-moving cracks. Do not over-brush. For ordinary wall waterproofing conditions, apply EmeKote 100 in two coats with 24 hours drying time between the initial coat and the finish coat. Apply the base coat at 2 lbs/ sq. yd. and the finish coat at 1 lb/sq. yd for a total of 3 lbs/ sq. yd. One 5 gal. pail (50 lbs.) EmeKote 100 will cover 150 square feet in two coats resulting in a coating approximately 1/16" thick cured nominal thickness. For severe water pressure, double the pounds per square yard or apply additional coats.

CAUTIONS:

Do not apply EmeKote 100 to frozen or frost filled surfaces or when the temperature is below 40° F. Do not apply to previously painted surfaces. Do not apply to substrates with active water leaks or moving cracks. Repair any cracks with Emecole epoxy or urethane injection resin. Windy, dry, or hot conditions may require re-wetting of EmeKote 100 during cure and the use of polyethylene barriers. Higher application temperatures and low relative humidity can shorten working pot life.

WARNINGS: Contains cement and silica, avoid inhalation of dust. Wear gloves, safety goggles, and OSHA approved dust respirator during mixing and placement. Refer to product M.S.D.S. (Material Safety Data Sheet) for additional safety information. Do not take internally. Avoid prolonged contact with skin.

KEEP OUT OF REACH OF CHILDREN.

NPCS HMIS SAFETY RATINGS:

HEALTH	2	FLAMMABILITY	0	REACTIVITY	0	PERSONAL PROTECTION	E

PACKAGING: 50# (22.70 kg) bags and pails.

STORAGE: 40° F (4.4° C) to 90° F (32.2° C) in a dry environment

SHELF LIFE: 1 year properly stored

FREIGHT CLASS: Item #42130, Sub 0, LTL 50 - Cement base coating material in bags or pails

WARRANTY

Recommendations concerning the performance or use of this product are based upon independent test reports believed to be reliable. If the product is proven to be defective, at the option of the Manufacturer, it will be either replaced or the purchase price refunded. The Manufacturer will not be liable in excess of the purchase price. The user will be responsible for deciding if the product is suitable for his application and will assume all risk associated with the use of the product. This warranty is in lieu of any other warranty expressed or implied, including but not limited to an implied warranty of merchantability or an implied warranty of fitness for a particular use.

EMECOLE
P.O. Box 7486, Romeoville, IL 60446
800-844-2713 815-372-2493
www.emecole.com

EMESEALCRETE
PENETRATING CONCRETE SEALER

GENERAL DESCRIPTION

Concentrated liquid sealer used to densify, strengthen, dust proof, and waterproof new and existing concrete. EmeSealCrete penetrates concrete surfaces and chemically forms crystalline structures that micro seals pores, voids and cracks. It minimizes moisture and radon penetration through basement walls and slabs.

USES

Use on concrete surfaces above or below grade, interior or exterior, vertical or horizontal. Applications include walls, slabs, basements, garages, traffic bearing structures, docks, ramps, pre-cast concrete elements; containment and retaining walls; and any concrete or masonry surface. It can also be used as a curing compound on green concrete and reduces surface dusting.

ADVANTAGES

- Reduces moisture and radon penetration in basements
- Hardens concrete and improves impact, abrasion and wear resistance
- Reduces porosity improving resistance to most soils, acids, oils, and salts
- Reduces spalling from freeze thaw cycles
- Protects against efflorescence and leaching
- Minimizes dusting and chalking
- Provides resistance to chemicals, mildew and fungus
- Permanent subsurface protection to depth of penetration eliminating the need for reapplication
- Penetrates into the pores of concrete forming insoluble crystals that become part of the concrete
- Colorless, non yellowing, residual-free surface
- Odor free, non-toxic, solvent free, and non-flammable

PACKAGING

1 gallon jugs, 5 gallon pails, 55 gallon drums

SURFACE PREPARATION

Surface must be clean and sound. Remove dirt, dust, grease, oil, waxes, foreign particles, curing compounds, and form release agents for maximum penetration. Use detergents as needed, rinse and remove surface water.

MIXING

Dilute 1 gallon of EmeSeal-Crete with 2 gallons of water (for block walls) or 3 gallons of water (for poured concrete walls) mixing thoroughly in a clean bucket or pail. Use hot water to improve penetration

APPLICATION

1. Freshly placed concrete - for use as a curing agent – wait until surface water disappears and finishing operations are completed. The surface must support foot traffic without damaging the concrete.
2. New concrete – follow surface preparation instructions.
3. Existing concrete – mechanically remove membranes if needed and follow surface preparation instructions.

Temperature should be 40°F – 100°F

INSTRUCTIONS

Apply generously using a low pressure sprayer, brush, roller, broom or squeegee over a pre dampened surface. Apply to the point of saturation keeping the treated area wet for a minimum of 30 minutes. Do not allow product to puddle and dry on the surface as this may cause a white blotchy discoloration. Mist treated areas that are drying to aid penetration. Two applications are recommended for typical situations. Actual drying times depend on ambient temperatures, humidity and wind conditions, 1-4 hours.

LIMITATIONS

- Best results are obtained by diluting the concentrate in hot water and applying immediately.
- Product will etch glass, painted, aluminum, and other smooth surfaces. Do not wear prescription glasses. Immediately wash and rinse over-spray areas with water.
- Minimum application temperature is 40°F. Best results are obtained without direct sunlight contact.
- Avoid outdoor applications in heavy wind or if rain is imminent.
- Do not thin with solvents.
- Always spot test for suitability before applying.

TECHNICAL DATA

SHELF LIFE: 1 year.

STORAGE: Store in cool, dry location. Do not freeze. May be used after thawing and agitating.

COLOR: Clear

CONCENTRATE: Dilute 1 gallon EmeSealCrete with 2-3 gallons of water, mix thoroughly. Use hot tap water and apply immediately to improve penetration.

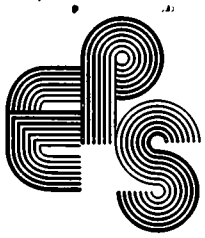
COVERAGE: 200 sq ft gal per application, 2 to 3 applications may be required. Actual coverage depends on substrate composition and porosity.

CLEAN UP: Clean sprayers, equipment, and tools with clean water immediately after use.

FOOT TRAFFIC: 24 hours

WARRANTY

Recommendations concerning the performance or use of this product are based upon independent test reports believed to be reliable. If the product is proven to be defective, at the option of the Manufacturer, it will be either replaced or the purchase price refunded. The Manufacturer will not be liable in excess of the purchase price. The user will be responsible for deciding if the product is suitable for his application and will assume all risk associated with the use of the product. This warranty is in lieu of any other warranty expressed or implied, including but not limited to an implied warranty of merchantability or an implied warranty of fitness for a particular use.



APPENDIX 5

CABENO Final Testing For Building Control Technology

CABENO
Environmental Field Services, LLC
More Than Just A Probing Company

October 11, 2017

Mr. Nicholas J. Cuzzone, P.E.
EPS Environmental Services Inc.
7237 W. Devon Avenue
Chicago, IL 60631

Re: Final Testing For Building Control Technology - Sub-Slab Depressurization System
2235 W. Roscoe St. Chicago, IL

Dear Mr. Cuzzone,

CABENO Environmental Field Services, LLC (CABENO) is pleased to provide you with the final test results for a building control technology (BCT) consisting of a sub-slab depressurization system (SSD installed by others) at 2235 W. Roscoe St. Chicago, IL. Active soil depressurization is recognized by the U.S. Environmental Protection Agency, consumer groups, and scientific organizations as the most effective technique for reducing soil vapor intrusion into buildings and homes.

The principle operation of this method is the creation of a negative pressure field below the building/structure to prevent the entry of soil vapor. Generally, one or more penetrations are made in the concrete floor slab and a small pit is created beneath each penetration. PVC vent pipe is connected to the penetrations, routed unobtrusively to an inline fan and vented to the outside.

CABENO did final testing to show appropriate pressure field extension was achieved under the slab. SSD system was installed by others.

Site Structure
The structure is a single-story brick building with basement.

Post Installation Testing
After the SSD system was installed by others. CABENO was contracted and conducted post installation sub-slab testing to verify that the negative pressure field extension was sufficient in extent to encompass the entire basement. Post installation testing consisted of quantitative testing.

931 Country Creek Dr.
New Lenox, IL 60451
ph: (815) 774-3747
fax: (815) 774-3748

Quantitative testing consisted of installing sub-slab vapor pins at five (5) specific points furthest possible from slab suction points. A digital micro-manometer with 0.001" WC resolution was used to measure vacuum at each point. Test point readings were as follows:

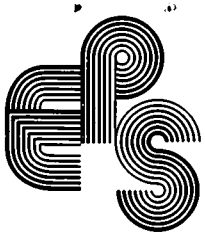
Location	Reading (inches WC)
TP1	0.014
TP2	0.077
TP3	0.194
TP4	0.020
TP5	0.014

Test point readings all came in with a differential pressure of at least 0.014" wc below the slab, thereby demonstrating the system is in conformance with the generated sub-slab vacuum requirement of 0.003" wc as specified in 35 IAC 742.1210 (B).

We at CABENO greatly appreciate the opportunity to work with you on this and look forward to working with you in the future. Please feel free to contact me if you have any questions or require any additional information.

Sincerely,
CABENO Environmental Field Services, LLC

Shaun Keehma
Project Superintendent



APPENDIX 6

IEPA Response Letter Dated September 6, 2017

Hi-Tek Environmental dba STAT Analysis Corporation
2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com

INVOICE

Bill To:
EPS Environmental Services, Inc
Account Payable
7237 W. Devon Ave
Chicago, IL 60631
773-792-3090
773-792-3091

Invoice Info:
Invoice Number: **332949**
Batch Number: 332949
Project ID: 18935-1017
Location: 1212 Naper Boulevard
Invoice Date: 10/25/2017
Terms: Net 30
Requested By: 11/24/2017
Page 1 of 1

No. of Samples	Analysis	Turn Around Time	Unit Cost	Total
13	PLM Asbestos	5 Days	$7.00	$91.00

Total Amount Due: $91.00

Thank you for your business. STAT Analysis looks forward to working with you in the future.

The data and analytical report associated with this invoice shall become property of the Customer upon payment in full. Otherwise, STAT will be under no obligation to support, defend or discuss the analytical report.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397
BRUCE RAUNER, GOVERNOR ALEC MESSINA, DIRECTOR

(217) 524-3300

September 6, 2017

American Drapery Cleaners
Attn: Mr. Richard Zell
401 South LaSalle Street, Suite 403
Chicago, Illinois 60618

Re: 0316055033--Cook County
Chicago/American Drapery Cleaners
Site Remediation/Technical Reports

Dear Mr. Zell:

The Illinois Environmental Protection Agency (Illinois EPA) has reviewed the following documents submitted by EPS Environmental Services, Inc. on behalf of American Drapery Cleaners:

- August 1, 2017 *Response Letter* (received August 3, 2017; Log No. 17-65217); and
- August 1, 2017 *Remedial Action Completion Report* (received August 3, 2017; Log No. 17-65219).

The subject documents are disapproved; additional information is needed as discussed below:

1. Please address 35 Illinois Administrative Code (IAC) Section 742.1210(c)(1)(A-E) related to the sub-slab depressurization (SSD) system. Use identical chapter headings and include all the required elements. Sufficient detail and supporting information (e.g. photographs) should be included.

2. Please submit a Tier 3 evaluation developed in accordance with 35 IAC Section 742.935 (Indoor Inhalation Exposure Route). Specifically, please address 35 IAC Section 742.935(a) – Exclusion of Exposure Route – by providing information demonstrating that there is no actual or potential impact of contaminants of concern (COCs) to receptors from the indoor inhalation exposure route. Similarly, please use identical chapter headings and address all the required items. Supporting information should include, but not be limited to, the following:

(1) information related to the installed SSD system; (2) information regarding both sealed sumps; and (3) information regarding the sealed limestone block walls.

3. The Tier 3 evaluation should include a detailed narrative discussion including information regarding the sealant used for both sumps and the basement walls. In addition, please provide manufacturer information, brochures, product data sheets, schematics/figures, Material Data Safety Sheet (MSDS), photographs, etc. in support of the Tier 3 evaluation.

All future submittals to the Site Remediation Program should include one original and one copy of each document and a DRM-2 Form.

If you have questions regarding this letter, please contact me at (217) 785-8724.

Sincerely,

M.C.

Jeffrey J. Guy, Project Manager
Voluntary Site Remediation Unit
Remedial Project Management Section
Division of Remediation Management
Bureau of Land

cc: Nicholas J. Cuzzone, EPA Environmental Services: NCuzzone@epsenvironmental.com

Bureau of Land File