

Analysis of Brownfields Cleanup Alternatives (ABCA) Report

Location:

Staubs Textile Services, Inc.
NYSDEC Superfund Site No. 828160
935 & 951 East Main Street
Rochester, New York 14605

Prepared for:

The Pike Company, Inc.
One Circle Street
Rochester, New York 14607

LaBella Project No. 2171018

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1.0	INTRODUCTION	1
2.0	BACKGROUND AND SITE HISTORY	1
2.1	Site Description & Features	1
2.2	Site History & Land Use.....	1
2.3	Summary of Previous Environmental Studies.....	1
3.0	HAZARDOUS & REGULATED MATERIALS ON-SITE.....	2
3.1	Asbestos-Containing Materials	2
3.2	Lead-Based Paint	3
3.3	PCB-Containing Materials.....	4
3.4	Mercury- Containing Items.....	4
3.5	Observations and Cautionary Statements.....	5
4.0	NATURE OF THREAT TO PUBLIC HEALTH	5
5.0	SELECTION OF CLEANUP GOALS	5
6.0	APPLICABLE LAWS AND REGULATIONS.....	6
6.1	Asbestos Laws and Regulations	6
6.2	Lead-Based Paint Laws and Regulations	7
6.3	Miscellaneous Hazardous Materials Laws and Regulations	7
7.0	ANALYSIS OF CLEANUP ALTERNATIVES	8
7.1	Alternative 1: No Action.....	8
7.2	Alternative 2: Building Demolition without Segregation of Regulated Building Materials	8
7.3	Alternative 3: Removal of Regulated Building Materials and Building Demolition	9
8.0	ALTERNATIVE EVALUATION AND RECOMMENDATION	10

Figures Figure 1- Site Location Map
 Figure 2- Site Layout Map

1.0 INTRODUCTION

LaBella Associates, D.P.C. (“LaBella”) is submitting this Analysis of Brownfields Cleanup Alternatives (ABCA) on behalf of The Pike Company, Inc. (“Pike”) for the former Staubs Textile Services Inc. located at 935 & 951 East Main Street, City of Rochester, Monroe County, New York (“the Site”).

This report presents an evaluation of alternatives for the remediation of Regulated Building Materials (RBMs) identified at the former Staubs Textile Services Building. RBMs included items that contain hazardous materials such as asbestos, mercury, PCB and lead. A summary of the RBMs identified in each building is provided in Section 3 below.

As part of the ABCA, an evaluation of applicable remedial methods was completed for the RBMs identified at the Site including:

- Alternative 1: No Action
- Alternative 2: Building Demolition without Segregation of Regulated Building Materials
- Alternative 3: Removal of Regulated Building Materials and Building Demolition

The recommended alternative for this Site is Alternative 3; Removal of Regulated Building Materials and Building Demolition.

2.0 BACKGROUND AND SITE HISTORY

2.1 *Site Description & Features*

The Site is comprised of two (2) contiguous tax parcels (106.75-1-39 and 106.75-1-17) totaling approximately 1.23-acres located in the City of Rochester in a predominately urban area. The Site is improved with one (1) three (3) story building totaling approximately 58,451 square feet (sq. ft.). The Site Building was constructed in at least 1912 with additions in at least 1927 and 1955 and has a partial basement. The Site Building has been vacant since 2005.

2.2 *Site History & Land Use*

The Site is a Class 2 Inactive Hazardous Waste Disposal Site (IHWDS) (Site #828160). The Site operated as an industrial laundry and dry cleaning facility from the 1920s until 2005. At least six (6) solvent tanks, a chemical storage area, a clarifier tank, two (2) gasoline tanks, a 20,000 gallon fuel oil tank, a diesel underground storage tank (UST) were formerly present at the Site. A total of twelve (12) USTs have been present at the Site.

2.3 *Summary of Previous Environmental Studies*

The NYSDEC completed a Remedial Investigation (RI) and several Interim Remedial Measures (IRMs) including UST closure and soil vapor extraction (SVE). The RI identified tetrachloroethene (PCE), trichloroethene (TCE) and associated breakdown compounds in soil, groundwater, and soil vapor at the Site.

Contaminated Site soils were designated Operable Unit (OU)-1 and on-Site groundwater and off-Site groundwater and soil vapor was designated OU-2 by the NYSDEC. The NYSDEC issued a Proposed Remedial Action Plan (PRAP) dated December 2016 which includes demolition of existing on-Site buildings, excavation and off-Site disposal of on-Site soils that exceed NYSDEC Commercial Use Soil Cleanup Objectives (SCOs) and treatment of on-Site soils using in-situ chemical treatment. Subsequently, the NYSDEC issued a Record of Decision (ROD) dated February 2017 for the proposed remedial actions. The NYSDEC subsurface remedy presumes demolition of the existing structures on Site.

LaBella conducted a Pre-Demolition RBM Inspection of the Site Building. The objective was to identify visible and accessible suspect building materials, such as Asbestos-Containing Materials (ACM), Lead-Based Paint (LBP), PCB-containing caulking and glazing compounds and other RBMs which may require abatement or removal before or during renovation due to applicable regulations.

The findings are detailed in a report dated December 2015 and summarized in Section 3 of this report.

3.0 HAZARDOUS & REGULATED MATERIALS ON-SITE

The inspection was conducted in accordance with generally accepted environmental engineering practices for this region. Collection of bulk samples of suspect RBMs was limited to those materials readily accessible using hand tools or hand-held power tools. Homogeneous materials were identified and located based on visual observation from readily accessible points. The data derived from representative samples of any given homogeneous material represent conditions that apply only at that particular location. Inspection protocol and methodology requires that sample data be used to draw conclusions about the entire homogeneous area, but such conclusions may not necessarily apply to the general Site as a whole.

No subsurface investigations were performed to determine the possible presence of regulated materials on or in the immediate vicinity of the Site.

3.1 Asbestos-Containing Materials

Based on laboratory analyses of bulk samples collected, the following materials were determined to contain greater than 1% asbestos:

Type of Material	Typical Location ¹	Estimated Amount ²	Friability	Condition
Black Pipe Tar	Basement on Lengths of Cork Insulated Piping	180 LF	Non-Friable	Good
Black Duct Tar	1 st Floor Office Area Above Both Suspended Ceiling Tiles And Metal Pan Ceiling System	320 SF	Non-Friable	Good
Dark Gray 9" Floor Tile	1 st Floor In The Rug Area And Under Carpets In The Office Area	2,700 SF	Non-Friable	Good
Brown 9" Floor Tile	2 nd Floor Lunch Room	1,040 SF	Non-Friable	Good

¹ Typical Location may not be inclusive of all material locations present at the subject structure.

² For general reference only: Estimated amounts of confirmed ACM listed above were obtained through field observations made during site visits. Quantities are approximations.

White Window Glazing Compound	Exterior 1 st Floor Windows Between The Glass Pane And Metal Frame	1,140 LF	Non-Friable	Good
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Pipe Tar

Black asbestos-containing pipe tar is located on lengths of cork insulated piping in the basement. The pipe tar is generally in good condition, and covers an area of approximately 180 linear feet.

Duct Tar

Black asbestos-containing duct tar is located on seams of cork insulated ductwork on the first floor in the office area above both the suspended ceiling tiles and metal pan ceiling system. This duct tar is generally in good condition, and covers an area of approximately 320 square feet.

9" Floor Tile

Dark gray asbestos-containing 9" floor tile and the associated black non-asbestos-containing floor tile mastic are located on the first floor in the rug storage area, as well as underneath carpeting throughout the office area. The floor tile is generally in good condition, and covers an area of approximately 2,700 square feet.

9" Floor Tile

Brown asbestos-containing 9" floor tile and associated black non-asbestos-containing floor tile mastic are located on the floor of the second floor lunch room. This floor tile is generally in good condition, and covers an area of approximately 1,040 square feet.

Window Glazing Compound

White asbestos-containing window glazing compound is located on the 1st floor exterior windows between the glass pane and metal window frame. This glazing compound is generally in good condition, and covers an area of approximately 1,140 linear feet. The second and third floor exterior windows have a different gray window glazing compound.

3.2 Lead-Based Paint

Several representative interior and exterior painted surfaces (such as door frames, window frames, piping, etc.) were tested for the presence of lead-based paint using x-ray fluorescence (XRF) testing procedures. The following components were found to be positive for the presence of lead:

- Red painted metal piping in the basement.
- White painted wooden support columns in 1st floor assembly area.
- White painted metal exterior door frame in the 2nd floor managers room.
- Gray painted metal elevator doors on all floors.
- Gray painted metal rolling fire doors on all floors.
- Yellow painted metal automatic sprinkler connector on the outside wall of the building.

In accordance with Environmental Protection Agency (EPA) protocols, no other materials were found to contain lead above the action level thresholds of 1.0 mg/cm² and 0.5% by weight.

The buildings and spaces inspected for this project do not include or comprise residential spaces applicable to the requirements of EPA and HUD lead-based paint management regulations. Therefore,

EPA 40 Code of Federal Regulations (CFR) 745: Lead-Based Paint Renovation, Repair and Painting (RRP) Program Rule and HUD requirements do not apply. However, lead was detected at low concentrations in a variety of building materials. Renovation and demolition contractors should be informed of the presence of lead for OSHA compliance considerations.

3.3 PCB-Containing Materials

Capacitors in Fluorescent Light Fixture Ballasts

Ceiling mounted fluorescent light fixtures were observed throughout the various sections of the building. Older vintage fluorescent light fixtures manufactured prior to 1980 typically contained a capacitor filled with PCB fluid. A representative number of light fixtures (i.e., not all fixtures were observed) were dismantled in each area of investigation, and all had ballasts labeled “No PCBs”. Based on these observations made at the time of the site visit, all ballasts can be considered to be non-PCB-containing. One exception to this may be broken ballasts observed in a sump within the former maintenance area. These were broken and labels could not be observed.

Caulking Compound

It has recently been discovered that certain caulking and glazing compounds have the potential to contain PCBs. Caulking and glazing compounds containing more than 50 ppm PCB must be disposed of as hazardous waste. Therefore, the following caulking and glazing compounds were sampled and analyzed for the presence of PCBs.

- Gray window glazing compound located between the glass pane and metal window frame of the 2nd and 3rd floor windows.
- White window glazing compound located between the glass pane and metal window frame of the 1st floor windows.
- White caulking compound located on all exterior doors between the metal door frame and walls.

Based on laboratory analysis, all suspect PCB-containing caulking and glazing compounds are not considered to be PCB-containing (i.e. NOT > 50 ppm PCBs). Therefore, these materials may be disposed of as non-PCB-containing waste.

Liquid-Filled Transformers

Older vintage liquid-filled transformers manufactured prior to 1980 typically contained PCB oil. No liquid-filled transformers were observed in the inspected areas.

3.4 Mercury- Containing Items

Ceiling mounted fluorescent light fixtures were observed throughout each of the buildings. These fixtures have light bulbs that contain varying amounts of mercury vapor. Fluorescent light fixtures were observed throughout the building. To prevent breakage and the release of mercury, bulbs should be removed and sent to a mercury recycling facility prior to renovations. Broken bulbs were observed in a sump within the former maintenance area.

Mercury thermostats were identified in the inspected areas. The following areas have thermostats that contain Mercury:

- Basement, one (1) thermostat in dehumidifier unit in file room.
- 1st floor, one (1) thermostat in holding area.

- 1st floor, three (3) thermostats in office area.
- 2nd floor, one (1) thermostat in the back of the common space.

3.5 Observations and Cautionary Statements

Fire Doors

Three (3) rolling fire doors were checked for the presence of suspect ACMs. All doors contained a solid wood core and were not considered to be suspect ACM.

Duct Tar

This material was observed above two (2) separate ceiling systems. The first was a suspended ceiling system and the second was a fixed metal pan ceiling system.

Grey Vermiculite

Vermiculite has been used as loose insulation in attics, walls, CMU block, and as a component of plaster, fireproofing and other building materials. The NYS Department of Health considers Vermiculite to be an ACM, and that building materials containing more than 10% Vermiculite should be treated as asbestos-containing.

Vermiculite was not observed in spaces and materials inspected for this project. Testing for the presence of Vermiculite was performed on various exterior walls by drilling into the void spaces of CMU block and visually observing for vermiculite.

Cautionary measures should be taken during construction, renovation, and demolition to ensure that proper steps are taken if Vermiculite is discovered in previously inaccessible locations. If Vermiculite is discovered, work should be stopped immediately to address the issue and prevent the uncontrolled release and distribution of an asbestos-containing material.

Potentially Hidden/Inaccessible RBMs

As previously stated, collection of bulk samples of suspect RBMs was limited to those materials readily accessible. Although this inspection was conducted in a manner consistent with recognized professional practices, the potential does exist for additional RBMs to be inaccessible, hidden, and undiscovered in the area inspected.

4.0 NATURE OF THREAT TO PUBLIC HEALTH

Renovation and/or demolition of the building would disturb ACM and other RBM at the Site. Disturbance of ACM will result in airborne asbestos fiber and could result in inhalation and exposures to those involved with the renovation and demolition work. Disturbance of the other RBM at the Site could result in dangerous exposures to workers and releases to the soil. Any uncontrolled disturbance could potentially result in exposure to nearby public.

5.0 SELECTION OF CLEANUP GOALS

Even though cancer risk from exposure to asbestos is most appropriately viewed as a chronic health concern, short-term exposure standards have been established by OSHA to limit exposures of workers in the workplace. There are two types of short-term limits, as follows:

- STEL 1.0 f/cc (Short-term exposure limit as fibers per cubic centimeters as detected using phase-contrast microscopy)
- PEL 0.1 f/cc (8-hr time-weighted average permissible exposure level).

New York State Department of Labor (NYSDOL) regulations Industrial Code Rule 56 (CR 56) require aggressive clearance sampling after asbestos abatement activity. Leaf blowers and fans are used to disturb interior air, and air samples are collected according to the standard method, NIOSH 7400. The clearance criterion as set forth in this regulation is 0.01 f/cc using Phase Contrast Microscopy (PCM).

The USEPA issued a final rule regarding dangerous levels of lead in pre-1978 housing and children-occupied buildings January 5, 2001 (40 CFR Part 745). Under the new standards, lead is considered a potential health hazard if settled dust is measure at levels greater than:

- 40 micrograms of lead in dust per square foot on floors;
- 250 micrograms of lead in dust per square foot on interior window sills and;
- 400 parts per million (ppm) of lead on window troughs.

6.0 APPLICABLE LAWS AND REGULATIONS

The following are applicable laws and regulations for asbestos-containing materials, lead-based paint, and materials containing miscellaneous hazardous substances.

6.1 *Asbestos Laws and Regulations*

Asbestos is regulated by the EPA, the Toxic Substances Control Act (TSCA), the Clean Air Act (CAA), and NYSDOL CR 56.

Further, to protect asbestos abatement workers, all asbestos abatement work must be performed in accordance with Occupational Safety and Health Administration (OSHA) asbestos regulations as promulgated in Title 29 of the Code of Federal Regulations (29 CFR), Section 1926.1101.

To assure worker and public safety the following work practices should be followed whenever demolition/renovation activities involving asbestos-containing materials occur:

- Complete a thorough inspection of the buildings for the presence of asbestos-containing materials
- Prepare abatement specifications by a NYSDOL certified Asbestos Designer
- Notify the NYSDOL of intention to abate and demolish by the required notification form
- Remove all asbestos-containing materials from facility in accordance with CR 56 requirements before any disruptive activity begins
- Monitor abatement activities in accordance with CR 56
- Complete and pass Final Clearance inspections and air sampling for each asbestos work area
- Obtain an approved variance from the NYSDOL to demolish the building with any non-friable asbestos to remain
- Dispose of all asbestos-containing materials in accordance with state and federal regulations

6.2 Lead-Based Paint Laws and Regulations

Lead-based paint in pre-1978 housing and children-occupied buildings is regulated under the authority of the Toxic Substances and Control Act (TSCA; 15 U.S.C. 2601 et seq.) as amended by the Residential Lead-Based Paint Hazard Reduction Act of 1992, generally referred to as Title X (of The Housing and Community Act of 1992 - Public Law 102-550). Title X mandates the training, certification and licensing of lead-based paint abatement contractors, inspectors, risk assessors, and the training and certification of abatement workers and project designers. The Act also amended the Toxic Substances Control Act section 402 & 403. The provisions of Title X apply to residential buildings and child-occupied facilities.

The USEPA issued a final rule regarding dangerous levels of lead in pre-1978 housing and children-occupied buildings on January 5, 2001 (40 CFR Part 745). Under the new standards, lead is considered a hazard if there are greater than:

- 40 micrograms of lead in dust per square foot on floors;
- 250 micrograms of lead in dust per square foot on interior window sills and;
- 400 parts per million (ppm) of lead on window troughs.

The Occupational Safety and Health Administration has published regulations regarding worker safety during activities involving lead-based paint abatement. The Construction Standard (29 CFR Part 1926) and the Occupational Safety and Health Standard (29 CFR Part 1910) promulgate a permissible exposure limit for lead construction workers, including workers performing demolition, salvage, or renovation of lead-containing materials at sections 1926.62 and 1910.1025 as follows:

"The employer shall assure that no employee is exposed to lead at concentrations greater than fifty micrograms per cubic meter of air (50 ug/m³) averaged over an 8-hour period." (29 CFR 1926.62)

Additional regulations under these chapters address other worker safety precautions such as respiratory protection programs, work practices, and medical monitoring.

Lead-based paint debris (material containing or surfaced with lead-based-paint) from commercial buildings may be classified as hazardous waste if lead concentrations exceed the Toxicity Characteristic Rule (40 CFR 261.24, 40 CFR 262.11) concentration limit of 5.0 mg/L in sample extract prepared according to the Toxicity Characteristic Leaching Procedure, test Method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846.

The City of Rochester regulates lead-based paint hazards in pre-1978 residential structures through City Code Section 90-51 through 90-65 (Lead-Based Paint Poisoning Prevention Ordinance). This regulation primarily parallels the EPA regulations, but additionally establishes the City as a recipient of final Lead Clearance Test results for residential housing units upon completion of renovations.

6.3 Miscellaneous Hazardous Materials Laws and Regulations

Activities involving building components and materials left in the building that may contain miscellaneous hazardous substances shall be performed in accordance with, but not limited to, the current revision of the USEPA & New York State Department of Environmental Conservation Hazardous Waste Regulations (40 CFR 260-282, 6 NYCRR, Parts 361, 364, 370, 371, 372, 373, and 376), USEPA PCB Regulations (40 CFR 761), USEPA Protection of Stratospheric Ozone (40 CFR 82), OSHA Hazard

Communication (29 CFR 1910.1200), OSHA Hazardous Waste & Emergency Response Regulations (29 CFR 1910.120), USDOT Hazardous Materials Regulation (49 CFR 171-1 80), OSHA, RCRA, CERCLA, CAA, TSCA, and all other laws and regulations.

7.0 ANALYSIS OF CLEANUP ALTERNATIVES

Reasonable Alternatives for hazardous and RBMs abatement and remediation considered for the Site are:

- Alternative 1: No Action
- Alternative 2: Building Demolition without Segregation of Regulated Building Materials
- Alternative 3: Removal of Regulated Building Materials and Building Demolition

The objective of the project is to reduce or eliminate the potential exposure to asbestos, lead, PCB, mercury and other miscellaneous hazardous materials for individuals working in the buildings to complete renovation and demolition work; as such, Alternative 3 is the preferred alternative. The three alternates are described below.

7.1 **Alternative 1: No Action**

Effectiveness: The effectiveness of the No Action alternative in achieving project goals would be negligible. The continued presence of asbestos-containing materials, lead-based paint, and miscellaneous hazardous substances in the Site Building, as would be the case under the no-action alternative, would pose a long-term health risk to the public and also to workers entering the buildings. The no-action alternative would be highly ineffective in achieving the goals of reduction of health risks and facilitating the redevelopment of the Site.

Implementation: Implementation of the No Action alternative would be fairly straightforward. The Site Building would be left in the current unused state in which they currently exist. The identified asbestos-containing materials and lead-based paint would still pose a hazard to those entering the Site Building. Transfer of the property to other parties would require notification of the presence of asbestos-containing materials, lead-based paint, and miscellaneous hazardous substances; and controls would be necessary to manage exposure to those entering the buildings. Under the No Action Alternative, if the Site Building remains unused for an extended period of time, the Site Building will continue to deteriorate increasing the risk to those entering the Site Building.

Cost: A No Action alternative would leave the Site Building in its existing condition making it undesirable for redevelopment, and difficult to obtain private interest for the renovation and reuse of the Site Building.

Summary: The only advantages to No Action are those related to immediate avoidance of expenses that would be incurred by taking action. However, in the long term, expenses associated with no action may exceed those related to taking action at the present time due to the continued deterioration of the condition of the Site Building. Redevelopment of the Site will eliminate potential impacts to human health and the environment due to underutilization or abandonment of the existing Site Building.

7.2 **Alternative 2: Building Demolition without Segregation of Regulated Building Materials**

Effectiveness: The Building Demolition without Segregation of Regulated Building Materials alternative would require all building materials to be disposed of as asbestos contaminated. This alternative would be effective in removing RBMs from the Site, but would be costly due to disposal of all building materials as asbestos contaminated. The absence of the Site Building will provide the maximum flexibility to implement subsurface remedial actions as proposed by the NYSDEC. As indicated in the ROD dated February 2017 for the Site, the NYSDEC's subsurface remedy presumes demolition of the Site Building.

Implementation: Implementation of this alternative would involve demolition of the Site Building in its current condition. Light fixtures containing PCB ballasts may be collected for disposal. Mercury-containing thermostats and thermometers may be collected for recycling. Other identified RBM would remain in-place during demolition and the demolition debris would be disposed of as asbestos contaminated.

Cost: This alternative would be costly due to the classification of all demolition debris as asbestos contaminated.

Summary: This alternative would be effective in remediating RBMs; however, it would be costly due to the disposal of demolition debris as asbestos contaminated. This alternative would be easy to implement and would prepare the Site for redevelopment. It should be noted that demolition will not include removal of the building floor slab due to consideration for subsurface soil and groundwater contamination.

7.3 Alternative 3: Removal of Regulated Building Materials and Building Demolition

Effectiveness: The Removal of Regulated Building Materials and Building Demolition alternative will properly manage the hazardous materials, and achieves the project goals of providing a Site ready for redevelopment. This alternative provides the safest environment for demolition due to complete removal of hazardous materials prior to demolition thereby preventing exposure to workers. The absence of the Site Building will provide the maximum flexibility to implement subsurface remedial actions as proposed by the NYSDEC. As indicated in the ROD dated February 2017 for the Site, the NYSDEC's subsurface remedy presumes demolition of the Site Building.

Implementation: Implementation of this alternative would include removal of RBMs prior to demolition. Following removal of RBMs, the demolition debris would be disposed of as construction and demolition debris (C&D) (i.e., not asbestos contaminated). Asbestos containing materials would be abated and removed from the building. Light fixtures containing PCB ballasts would be collected for disposal. Mercury-containing thermostats and thermometers would be collected for recycling. Other identified RBM would be collected and disposed as required by state and federal regulations. Demolition occurs after the removal of these materials, and controlled methods are used to manage dust during the demolition work.

Cost: This alternative is cost effective because it consists of disposing of RBMs prior to demolition which will allow demolition debris to be disposed of as C&D.

Summary: This alternative is the most cost effective approach for preparing the Site for new infrastructure, buildings and services. It yields a Site prepared for redevelopment following completion of subsurface remedial actions. It should be noted that demolition will not include removal of the building floor slab due to consideration for subsurface soil and groundwater contamination.

8.0 ALTERNATIVE EVALUATION AND RECOMMENDATION

An Analysis of Brownfields Cleanup Alternatives (ABCA) has been performed for hazardous substances and RBM abatement alternatives at the former Staubs Textile Services Site. Three alternatives were considered for implementability, cost, and effectiveness:

- Alternative 1: No Action
- Alternative 2: Building Demolition without Segregation of Regulated Building Materials
- Alternative 3: Removal of Regulated Building Materials and Building Demolition

Recommendation

Based on an evaluation of these criteria, it is determined that Alternate 3; Removal of Regulated Building Materials and Building Demolition is the preferred alternative. It meets the evaluation criteria and is cost effective.

The current conditions, including environmental considerations, of the buildings at the Site should be considered a major barrier to Site redevelopment. Removal of Regulated Building Materials and Building Demolition is the most direct and cost effective approach to preparing the Site for redevelopment. It should be noted that demolition will not include removal of the building floor slab due to consideration for subsurface soil and groundwater contamination.

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FIGURES

