
*NYSDEC Interim Remedial Measures Work Plan and
U.S. EPA Self-Implementation Cleanup Plan for the Remediation
of Polychlorinated Biphenyl (PCB) Contamination*

NYSDEC Brownfield Cleanup Project

NYSDEC Site No. C645049

U.S. EPA Cooperative Agreement No. BF-97219900

Former Standard Shade Roller Site

City of Ogdensburg

Prepared For

City of Ogdensburg

Department of Planning and Development

330 Ford Street

City Hall Room 11

Ogdensburg, New York 13669

April 2015

Revision 1

November 2021

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Prepared By:

Barton & Loguidice, D.P.C.
443 Electronics Parkway
Syracuse, New York 13088

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1.0 INTRODUCTION

1.1 Purpose and Objective

This document presents the proposed scope of work for the completion of an Interim Remedial Measure (IRM) in accordance with New York State Department of Environmental Conservation (NYSDEC) guidelines, and the performance of self-implementing cleanup (SIC) activities as per U.S. Environmental Protection Agency (EPA) requirements. The purpose of this IRM/SIC is to remediate bulk polychlorinated biphenyl (PCB) waste from impacted materials that are known to exist within the former Maintenance Garage concrete slab, sediment in the concrete trench drain, underground drainage pipe in-line drainage structures MH-1 and MH-2, and residual, low level shallow surface soil (1.5-feet) around the perimeter of Maintenance Garage foundation at the Standard Shade Roller site located at 541 Covington Street in the City of Ogdensburg, New York (Figure 1). Specifically, the enclosed IRM Work Plan has been prepared by Barton & Loguidice, D.P.C. (B&L) in accordance with the provisions of DER-10/Technical Guidance for Site Investigation and Remediation, issued by the NYSDEC on May 3, 2010, while the enclosed self-implementing cleanup plan (SICP) conforms to the requirements of 40 CFR Part 761 for the remediation of PCB-impacted materials.

The City of Ogdensburg is the current owner of the Former Standard Shade Roller property located at 541 Covington Street in the City of Ogdensburg, St. Lawrence County, New York (Site) (Figure 2). Work completed at the Site from 2009 to present includes the following: 1) abatement of asbestos and lead-based paint from the on-site building structures prior to their demolition; 2) the characterization, removal and proper disposal of hazardous and non-hazardous waste (in the form of empty, partially full, and full containers of various identified and unidentified substances) found to exist within the main building and other on-site structures; 3) the demolition of 11 buildings down to their concrete or wooden foundation slabs; and 3) the completion of three supplemental subsurface investigations.

The intent of the IRM, as described in the NYSDEC-approved Remedial Investigation Work Plan prepared by B&L dated October 2012, is to remove identified sources of contaminants from the site, including “floor drains within the various on-site building slabs, drain pipes and dry wells receiving discharges from the floor drains, underground storage tanks (if any), and associated contaminated sludge and soil”. In preparation for the removal of these identified contaminant sources, B&L characterized the sediment that are present within the concrete trench drain of the former Maintenance Garage, including an inter-connected drywell (MH-1), and discharge pipe running through MH-2 in the direction of the St. Lawrence River, in order to arrange for their proper handling and disposal. Specifically, a total of four sediment samples were collected from these structures (SED-1 from MH-2, SED-2 from concrete trench drain in the maintenance garage, SED-3 from MH-1, and the Maintenance Building Pipe drain sample) in 2013 and submitted for analysis of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, and PCBs. Four additional sediment samples were collected from the concrete trench drain (MB-SED-1 through MB-SED-4) in May 2015 and submitted for analysis of PCBs. The laboratory test results revealed that all eight sediment samples exhibited elevated

concentrations of PCBs (Tables 1 & 2). Specifically, the sediment samples collected from the former Maintenance Garage concrete trench drain (designated as SED-2 and MB-SED-1 through MB-SED-4) had reported PCB concentrations ranging from 49.0 parts per million (ppm) to 120 ppm, while the sample collected from the MH-1 drywell structure had a PCB concentration of 23.7 ppm (SED-3). Additional detectable concentrations of PCB sediment were encountered at MH-2 labeled as SED-1 (18.0 ppm) and the Maintenance Building Discharge Pipe (42.0 ppm) (Figure 4).

Concrete dust and chip samples were also collected from the existing Maintenance Garage concrete slab with reported PCB concentrations ranging from 42 ppm to 280 ppm (MBCS-1 through MBCS-4 and CS-13) (Figure 4).

Due to detection of PCB source material associated with the Maintenance Building drainage system and concrete surface slab greater than 50 ppm, the City is conducting this IRM for the New York State DEC Brownfield Cleanup Program as a Self-Implementing Clean-up of bulk PCB remediation waste in accordance with the provisions of the federally-mandated Toxic Substances Control Act (TSCA) 40 CFR 761.61. Therefore, prior to the implementation of IRM activities at the former Standard Shade Roller site, a self-implementing cleanup plan must be prepared and submitted to the EPA Region 2 Office in accordance with the provisions of 40 CFR 761.61(a). The self-implementing cleanup plan must include the following information: a) Description of encountered PCB contamination, including the location and extent of the contamination; b) Data summary table that indicates the reported PCB concentration for each sample; c) Cleanup plan for the site, including a description of the proposed disposal method for the PCB-contaminated sediments; and d) a schedule for the completion of the work.

Following the NYSDEC and EPA review and approval of this combined IRM/Self-Implementation Cleanup Plan, detailed technical specifications and engineering design drawings will be prepared for public bid and award of the remediation project. Please be advised that the City of Ogdensburg intends to issue a single contract for the performance of this self-implementing PCB remediation project, in addition to other site remedial and development tasks including excavation and removal of metals-contaminated soils.

The objective of the IRM/SICP is to remediate the PCB contamination that is present in the sediment located in the concrete trench drain of the former Maintenance Garage, the existing Maintenance Garage building concrete slab, drainage structures MH-1 and MH-2, underground piping associated with the former Maintenance Garage building, and low level soil impacts identified around the Maintenance Garage foundation to standards that satisfy 6 NYCRR Part 371 and Part 375 regulations, as well as EPA's high-occupancy use criteria under 40 CFR 761.61. The City's ultimate goal is to clean-up the site such that the property can be sold and returned to the City tax roll.

1.2 Project Background

The former Standard Shade Roller property, which consists of 7.76 acres, is located at 541 Covington Street in the City of Ogdensburg, St. Lawrence County, New York (refer to Figure 1). The subject property is bordered on the northwest by the St. Lawrence River, and access to the site is gained via Adams Avenue which intersects with Main Street (aka NYS Route 68) in the north-western corner of the City. The subject property is currently owned by the City of Ogdensburg, as recorded in the St. Lawrence County Clerk's Office as Instrument I.D. No. 2007-14552; Tax Parcel Map I.D. No. 48.077-1-2.1.

The subject property has supported a variety of industrial uses since the turn of the century. Previous site uses included boat manufacturing, match manufacturing, brewing, shade roller manufacturing, and milling. During its final period of active operation (which ended in 1997), the subject property was occupied by the Joanna Window Décor Division of the Crown Home Furnishings Company. Joanna Window Décor manufactured window shade hardware, and part of this process included the plating of metals. The zinc-cyanide electroplating process, which occurred in the main building of the facility, was initiated in 1945 and continued until 1987. From 1987 through 1992, the electroplating process was cyanide-free, and then in 1992 the electroplating process was terminated at the facility. It is reported that during the 1960s and 1970s the wastes derived from the cyanide plating process were treated on site with the use of peroxides and buffers, and the treated wastewater was discharged into the facility's combined stormwater sanitary sewer system. The residual solid waste (i.e., sludge) was reportedly disposed of at the City of Ogdensburg Landfill. However, it is unknown how the process-derived cyanide wastes were handled or disposed of during the 1940s and 1950s.

Up until 2012, the vacant site contained 11 abandoned and slowly deteriorating buildings, the locations of which are depicted on the enclosed Site Plan (Figure 2). As noted on Figure 2, the buildings were used for a variety of purposes during the shade manufacturing operations which ceased in 1997. Based on information presented in a July 2008 *Phase IA Literature Review and Archeological Sensitivity Assessment* Report prepared by Hartgen Archeological Associates, Inc. (Hartgen) for the City of Ogdensburg, the buildings previously contained equipment maintenance shops, boiler rooms, metal plating areas, metals machining areas, and materials warehouse areas. However, according to the Hartgen Phase IA report, the location and configuration of the originally constructed buildings was altered during the course of site development which occurred over a period of approximately 100 years. Furthermore, based on a review of historical aerial photographs and Sanborn Fire Insurance Maps, Hartgen determined that the subject property has nearly doubled in size since the onset of its initial development. Specifically, with the use of fill material of unknown origin, the original shoreline of the St. Lawrence River has been extended a distance of 40 to over 100 feet in a northwesterly direction. For example, Shed Nos. 1, 2A, 2B, 2C, and No.3, as well as the Garage, were all constructed on fill material.

With the cessation of shade manufacturing operations in 1997, the on-site buildings were left abandoned and no longer maintained. Deterioration of the buildings continued over the next 10 year period and when the City of Ogdensburg took ownership of the property in 2007, there was evidence of significant wind and water damage to several of the buildings. Due to the deteriorated condition of the on-site structures, the City decided that in order for future development of the property to occur, the buildings would need to be demolished. Therefore, in 2007 the City applied to the Empire State Development Corporation (ESDC) for a Restore New York Communities Initiative Program Grant for the purpose of performing asbestos abatement and building demolition activities. The City was subsequently awarded \$700,000 in Restore NY funding, and in 2010 the City conducted asbestos/lead abatement and building demolition work which was completed in March 2012.

1.3 Project Description

1.3.1 Regulatory Governance and Standards

The storage, use, cleanup, and disposal of PCBs are regulated by both Federal and New York State mandated statutes as follows: the Toxic Substances Control Act and Regulations (40 CFR Part 761) implemented by the U.S. Environmental Protection Agency (EPA), and the Part 371 and Part 375 Regulations which are administered by the New York State Department of Environmental Conservation (NYSDEC). The Part 375 Regulations, which pertain to the former Standard Shade Roller site, include soil cleanup objectives (SCOs) that stipulate the maximum allowable concentration of PCBs that can exist on a site based upon the intended future use of the property. The City of Ogdensburg wishes to pursue Restricted Residential SCOs for the future reuse of the former Standard Shade Roller property. Therefore, the maximum allowable concentration of PCBs to remain at the former Standard Shade Roller site is ≤ 1.0 ppm.

The federally-mandated Toxic Substances Control Act (TSCA) Regulations outline the PCB cleanup criteria for “bulk PCB remediation waste” such as the Maintenance Garage concrete slab, concrete trench drain and associated underground piping, sediment, and soil. Similar to the above referenced NYSDEC Regulations, the cleanup levels established by the EPA for the remediation of PCB-contaminated sediment and soil is dictated by the intended future use of the property. Specifically, in accordance with the provisions of 40 CFR Part 761.61(a), the “new” or future use of a property must be categorized as either a high occupancy area or a low occupancy area based on the following criteria:

High-Occupancy Area: A high-occupancy area is generally defined as any area where PCB remediation waste has been disposed of on-site (including but not limited to any building, any floor/wall of the building, and any enclosed space within the building), and where the annual occupancy of any individual not wearing dermal and respiratory protection will be 335 hours per year or greater (equivalent to an average of 6.7 hours per week). For high occupancy areas, the maximum allowable concentration of PCBs is

1.0 ppm. Examples of high occupancy areas include: a residence, a school, a cafeteria in an industrial facility, a control room, and a work station at an assembly line.

Low-Occupancy Area: A low-occupancy area is generally defined as any area where PCB remediation waste has been disposed of on-site (including but not limited to any building, any floor/wall of the building, and any enclosed space within the building), and where the annual occupancy of any individual not wearing dermal and respiratory protection will not exceed 335 hours per year (equivalent to an average of 6.7 hours per week). For low occupancy areas, the maximum allowable concentration of PCBs is 25.0 ppm. Examples of low occupancy areas include: a location in an industrial facility where a worker spends small amounts of time per week, or in the non-office space of a warehouse where occupancy is transitory.

A remediated Brownfield site that satisfies the high-occupancy use standards for PCB cleanup can be utilized with no further restrictions, whereas a site that has been remediated to meet the low-occupancy standards for PCB cleanup is subject to deed restrictions and/or other institutional and engineering controls, in addition to the limitation of the allowable hours of annual occupancy as described above. Based on the premise that the City would like to satisfy the NYSDEC cleanup criteria for Restricted Residential Use, which stipulates a maximum allowable PCB concentration of 1.0 ppm, the PCB-contaminated sediment located in the Maintenance Garage trench drain, drain structures, shallow soils, and concrete slab at the former Standard Shade Roller site will be remediated to satisfy the EPA requirements for a high-occupancy area.

1.3.2 Analysis of PCB Cleanup Methods

As previously discussed, the sediment sample collected from the concrete trench drain of the former Maintenance Garage building had reported PCB concentrations ranging from 49.0 ppm (MB-SED-2) to 120 ppm (MB-SED-1), while the sediment samples collected from a MH-1 drywell structure (SED-3), and an access structure to the Maintenance Building discharge pipe (labeled as MH-2 and SED-1 sampling location) has PCB concentrations of 23.7 ppm and 18.0 ppm, respectively (Figure 4). To confirm impacts within the floor drain pipe a sediment/sludge sample was also collected from the interior of the pipe labeled “Maintenance Building Discharge Pipe” and a PCB level of 42.0 ppm was observed (Figure 4). Shallow surface soil samples were collected around the perimeter of the Maintenance Garage concrete slab (MB-SS-01 through MB-SS-27) and revealed five (5) low level detections (> than 1 ppm) of PCBs at depths ranging from 0.0 to 1.5 feet below grade. In most cases, the top 0.5 feet was unable to be sampled due to the existing asphalt surface. The reported PCB detections ranged in concentration from 1.1 ppm at MB-SS-07 to 3.2 ppm at MB-SS-18. Sample locations are identified on Figure 5. Other low level detections were also observed at locations MB-SS-09, MB-SS-17, and MB-SS-19, with observed readings of 1.9 ppm, 1.9 ppm, and 2.1 ppm, respectively.

Since levels were observed above the high occupancy use criteria, additional PCB samples were collected from six locations (MB-SS-28 through MB-SS-33) in October 2015. Samples were collected at points located 3-meters beyond the previous sampling locations (points identified above) which exceeded 1 ppm, with reported results of <1.0 ppm noted at all locations except for MB-SS-30. A reported concentration of 1.1 ppm was documented at MB-SS-30. Although this detection is slightly above the 1.0 ppm PCB threshold, it is B&L's opinion that the result is well within an allowable variance percentage and further sampling is not anticipated to be performed around this location. Clearance sampling during remediation will confirm remaining soils below 1.0 ppm.

Based upon our evaluation of the PCB sampling results and our understanding of the site conditions in the vicinity of the former Maintenance Garage, B&L has determined that the IRM/SICP activities to be performed will consist of the following:

- Clean and remove remaining sediment from the concrete trench drain in the Maintenance building for disposal.
- Demolish and dispose of the Maintenance Garage concrete slab.
- Excavate and removal of the Maintenance Building floor drain pipe extending in the direction of the St. Lawrence River.
- Excavate and remove MH-1 and MH-2 structures located in the vicinity of the Maintenance Building and associated underground piping.
- Conduct confirmatory sampling of soils underneath the concrete slab, concrete trench drain, outlet piping, and the MH-1 and MH-2 structures to verify that the PCB levels are either at or below 1.0 ppm for no further action.
- Concrete trench drain, outlet piping, MH-1, and MH-2 structures confirmation soil sampling for VOCs, SVOCs, and Metals.
- On-site or off-site disposal of the former Maintenance Garage building sub-slab soils and adjacent surrounding shallow surface soils pending PCB confirmation analysis results.
- On-site disposal of concrete will require crushing to 4-inch minus material for use as site fill, assuming analytical results are at or below the 1.0 ppm threshold.

1.4 Project Management and Organization

The City of Ogdensburg is the "Project Owner", and the City will contract for the performance of the aforementioned IRM activities, PCB, and metal remediation services through competitive bidding. As the project engineer, Barton & Loguidice, D.P.C. (B&L) will provide the following technical services:

- Preparation of bid specifications and design drawings;
- Evaluation of bids and contractor submittals;
- Remediation oversight;
- Performance of post-remediation clearance sampling; and
- Reporting.

The selected environmental services subcontractor will perform the remedial tasks described below in Section 2 of this Work Plan. The remedial contractor will be required to satisfy City-mandated insurance and bonding requirements, as well as demonstrate relevant project experience. Once selected, the contractor will be required to submit to B&L for review and approval a Health & Safety Plan (HASP) and project schedule, as well as other deliverables that will be identified in the bid specifications.

2.0 DESCRIPTION OF PCB REMEDIATION ACTIVITIES

2.1 General Field Activities

2.1.1 Site Meeting

A “kick-off” meeting will be held with the selected remedial contractor, the City of Ogdensburg, and B&L prior to the start of remedial activities. The purpose of the meeting will be to discuss the scope of work and specific field procedures, and review deliverables (HASP, schedule, etc.). NYSDEC and USEPA personnel are welcome to attend this meeting, and will be given seven (7) days advance notification of the meeting date.

2.1.2 Mobilization

The selected remedial contractor will mobilize to the site within ten (10) business days of the site meeting. Mobilization will entail transporting the necessary equipment and supplies to the site, establishing work areas and securing the site, as needed.

2.1.3 Health and Safety

The work described in this work plan is subject to regulation under 29CFR 1910.120 – Hazardous Waste Operations and Emergency Response (HAZWOPER). A Health & Safety Plan (HASP) for B&L personnel is included in Appendix A. The selected remedial contractor will be required to submit their project-specific HASP, as well as documentation that their project personnel have been trained in accordance with 29 CFR 1919.120 and understand the site hazards associated with the remedial work.

2.2 Air Surveillance and Monitoring

Subsurface excavation activities associated with the removal of the former Maintenance Building concrete trench drain, underground piping, and MH-1 and MH-2 structures, and surface soil hotspot removal will require the establishment of outdoor air surveillance monitoring. Volatile organic compounds and particulate air monitoring will be conducted in the downwind direction of the excavation area in accordance with New York State Department of Health (NYSDOH) Community Air Monitoring protocol outlined in DER-10 Technical Guidance for Site Investigation and Remediation. Deployment of air monitoring is used to protect the surrounding community from potential impacts arising from airborne contaminants generated through site clean-up activities (Appendix A). Air monitoring for health and safety purposes will be specified by the selected remedial contractor in their HASP.

2.3 Areas of Concern

2.3.1 Floor Drain

As previously noted, the levels of PCBs detected in the sediment samples collected from the Maintenance Garage concrete trench floor drain ranged from 49.0 ppm to 120 ppm

(Figure 4). In addition, the subsurface soils under the trench drain were also tested for PCB impacts (Table 1). Specifically, soil borings B-139, B-140, PCB-7, and PCB-8 were installed during supplemental subsurface investigations conducted by B&L in January of 2013 and June of 2014 (Figures 3 and 6). Subsurface soil analytical results obtained from sample intervals 0.5 to 8.0 feet below ground surface (bgs) revealed no detections of PCBs beneath the trench drain (Table 1).

PCB levels observed from sediment samples collected from the concrete trench drain are above applicable standards for Part 375 SCOs for Restricted Residential Use (1 ppm), and will therefore require remediation to meet cleanup guidelines. Subsurface soils beneath the floor drain appear to have minimal PCB impacts and will not require remediation. Confirmation soil samples will be collected from below the trench drain once the concrete is removed, to verify that PCB impacts greater than 1.0 ppm do not exist.

Concrete dust/chip samples have not been collected from the floor drain, but it is anticipated that PCB impacts exist and the material will be demolished and properly disposed of at a regulated solid waste or hazardous waste facility following TCLP sampling.

2.3.2 Maintenance Building Concrete Slab

As part of the site cleanup process, the remedial contractor will be instructed to demolish and remove the Maintenance Building concrete slab. Concrete dust/chip samples collected from the existing building slab resulted in elevated levels of PCBs ranging from 42.0 ppm at CS-13 to 280 ppm at MBCS-1 (Figure 4). Composite PCB sampling of stockpiled material will be required by the remedial contractor to determine disposal requirements. Concrete sampling procedures will be in accordance with the SAP provided in Appendix B.

Results of the concrete TCLP analysis will determine the disposal procedures, which will require removal and disposal of the PCB-contaminated concrete at a regulated solid waste or hazardous waste facility, depending on the detected PCB concentration levels.

2.3.3 Dry Wells

In June 2014, May 2015, and August 2015, supplemental subsurface investigations were completed to specifically target subsurface PCB impacts around the former Maintenance Building. A total of 18 subsurface borings (PCB-1 through PCB-18) were installed through the Maintenance Building concrete slab and around MH-1, MH-2 structures, and associated drainage pipe (Figure 3). During the investigations it was determined that MH-1 is a drywell assumed to be connected to the Maintenance Building trench drain through an underground discharge pipe; and MH-2 is an access hatch to a discharge pipe that appears to run from the Maintenance Building in the direction of the St. Lawrence River; however, no outlet has been identified. MH-2 was

previously thought to be a drywell location; but, was later confirmed during the June 2014 investigation to only be a cleanout access hatch to the underground pipe extending from the Maintenance Building towards the St. Lawrence River. The location of MH-1 and MH-2 are identified on Figure 3.

Discharge from the Maintenance Building concrete trench drain is presumed to empty via underground piping to the MH-1 dry well. A second branch of the underground piping appears to run through MH-2 in the direction of the St. Lawrence River. Sediment samples collected from inside of MH-1 (sample location SED-3) and MH-2 structures (sample location SED-1) revealed PCB concentrations of 23.7 ppm and 18.0 ppm, respectively. Supplemental subsurface borings (PCB-11, PCB-12, PCB-15, and PCB-16) were installed around the perimeter of the MH-2 structure (Figure 3) and did not reveal PCB impacts above the 1.0 ppm threshold. Six subsurface soil borings (PCB-1 through PCB-6) installed around drywell location MH-1 did not indicate PCB impacts (Figure 3).

Additional shallow surface soil samples (0.0 to 1.5 feet) were collected around MH-1 and MH-2 to identify shallow soil conditions (Figure 5). Shallow surface soil results collected around MH-1 (MH-1 SS-1 through MH-1 SS-6) revealed low level PCB detections ranging in concentration from .042 ppm to .720 ppm, which are all below the 1.0 ppm threshold. Shallow surface soil samples collected from the area around MH-2 (MB Pipe Sub-7 through MB Pipe Sub-10) also revealed low level detections of PCBs ranging in concentrations from .037 to .200 ppm, which were also below the EPA established threshold of 1.0 ppm for high occupancy use. PCB results can be viewed in Summary Table 1.

PCB levels observed from sediment samples collected from inside both MH-1 and MH-2 are in excess of Part 375 SCOs for Restricted Residential Use, and will therefore require remediation in order to meet the intended future site development needs requested by the City of Ogdensburg. Perimeter subsurface and shallow subsurface soil borings around the MH-1 and MH-2 structures did not exhibit PCB impacts, indicating PCB contamination has been confined to within the MH-1 and MH-2 structures. Additional confirmation soil sampling around MH-1 and MH-2 will be required following removal of the structures to verify that PCB levels are below the 1.0 ppm threshold. Also, VOC, SVOC, and metal confirmation samples will be collected following removal of the structures.

2.3.4 Former Building Drain Piping

In June 2014 a subsurface investigation was conducted at the Site to identify the location of the former Maintenance Building pipe, which extends from the Maintenance Building north in the direction of the St. Lawrence River. The pipe was not visible along the shoreline of the St. Lawrence River. The pipe is in-line with the existing trench drain and wash bay of the Maintenance Building and is also visible through an access hatch at

location MH-2. A test pit (TP-7) was excavated between MH-2 and the St. Lawrence River where the pipe was located at a depth of approximately 3-feet below grade (Figure 3). Sediment/sludge material was present within the pipe and was sampled for the presence of VOCs, SVOC, Metals, and PCB and labeled as Maintenance Building Pipe. Results of the sample collected from the Maintenance Building Pipe revealed concentrations of metals and PCBs in excess of cleanup standards (Table 2).

Shallow surface (0.0 to 1.5 feet) and subsurface soil borings (0 to 4 feet) were collected on each side of the discharge pipe extending from the Maintenance Garage towards the St. Lawrence River. A total of 6 subsurface soil borings (PCB-13 through PCB-18) were collected (Figure 3) and 20 shallow surface soil samples (MB Pipe Sub-1 through Sub-20) (Figure 5). Shallow surface soil sample results revealed low level detections of PCBs ranging in concentrations from non-detect to 0.4 ppm. Only a single PCB detection was observed in the subsurface soil borings, with a reported concentration of 0.095 ppm reported at location PCB-18. The results of the PCB testing around the pipe confirms that although low level detections of PCBs exist, the pipe likely remains intact and any contamination remaining is contained within the discharge pipe. Soils around the pipe are all below the EPA TSCA high occupancy use criteria as well as the Part 375 SCOs for Restricted Residential Use.

Based on the current condition of the pipe and the presence of impacted sediment within the pipe, removal and proper disposal of the pipe and materials within will require disposal at a permitted landfilling facility. The estimated location of the pipe, subsurface sampling locations, shallow surface sampling locations, and test pits are included in Figures 3 and 5. Additional confirmation soil sampling below the discharge pipe will be required following removal to verify that PCB levels are below the 1.0 ppm threshold. Also, VOC, SVOC, and metal confirmation samples will be collected following removal of the structures.

2.4 General PCB Cleanup Procedures

In accordance with 40 CFR Part 761.61 guidance procedures for cleaning, decontaminating, or removing PCB remediation waste, four categories have been established, which include:

- Bulk PCB remediation waste;
- Non-porous surfaces;
- Porous surfaces; and
- Liquids

PCB materials encountered on-site are characterized under the bulk PCB remediation waste category, which is defined under 40 CFR Part 761.61 as remediation waste that includes, but is not limited to, the following non-liquid PCB remediation waste: soil, sediments, dredged materials, muds, PCB sewage sludge, and industrial sludge.

All materials demolished or excavated by the contractor will be staged on two layers of 6 mil poly sheeting, unless the materials are live-loaded to a truck for immediate disposal. It is anticipated that excavated soils will be temporarily staged on the former Shed No. 3 asphalt slab, to the west of the Maintenance Garage. Edges of the staging area shall be bermed, such that liquids cannot discharge to the surrounding area. All stockpiles will be covered at the end of each day to prevent migration of potentially contaminated soils (by wind) to off-site receptors.

Prior to the initiation of any construction activities that may produce dust, the selected contractor will be responsible for the establishment of a Community Air Monitoring Plan. The site specific CAMP will be implemented in accordance with the Health and Safety Plan (Appendix B), to provide real-time monitoring for VOCs and dust at the downwind perimeter of the work area. It is not anticipated that VOCs will be a concern during the excavation and removal of PCBs; however, the generation of dust is likely. The contractor will be responsible for continuous monitoring of the upwind and downwind perimeters of the work zone with periodic monitoring of VOCs in the downwind direction. The contractor will be responsible for deploying dust control measures to minimize the amount of dust generated during demolition and excavation activities. Dust suppression measures will include, but not be limited to:

- Wetting or misting of the demolition/excavation work area;
- Reducing the rate at which the equipment is working and or numbers of equipment in the work area; and
- Cover stockpiles with poly sheeting during periods of high wind and or non-working hours.

Particulate and VOC air monitoring will be conducted in accordance with New York State Department of Health (NYSDOH) Community Air Monitoring protocol outlined in DER-10 Technical Guidance for Site Investigation and Remediation (Appendix A). Air monitoring for health and safety purposes will be specified by the selected remedial contractor in their HASP.

The selected contractor will be responsible for the testing, containerizing, and disposal of PCB waste encountered during remedial efforts. PCB waste materials in excess of 1.0 ppm but less than 50.0 ppm will be transported off-site in DOT approved containers for disposal at a permitted solid waste facility. PCB wastes with concentrations greater than or equal to 50.0 ppm will be disposed of at a permitted hazardous waste facility. PCB levels that are less than 1.0 ppm will be left in place.

The selected contractor will be responsible for waste characterization prior to the removal of any media from the site to verify PCB concentrations. Sample results will be submitted to the disposal facility for waste acceptance. Transportation and shipping documentation will be provided to B&L and included in a project summary report to the NYSDEC and USEPA.

Non-hazardous waste will be transported to the Development Authority of the North Country (DANC) Solid Waste Management Facility located in Rodman, New York for disposal. Material that are characterized as hazardous based on previous investigation testing results will require disposal at the nearest permitted hazardous waste disposal facility.

2.4.1 Concrete Trench Drain Demolition and Removal

Sediment present in the concrete trench drain of the former Maintenance building will be removed by the remedial contractor and containerized for sampling and disposal. The concrete trench drain will be completely removed as part of the Maintenance Garage concrete slab demolition work.

Discharge piping from the concrete trench drain to MH-1 and MH-2 beneath the concrete Maintenance Building slab will also require removal. This work will be completed after the Maintenance Building concrete slab has been tested and removed allowing access to the discharge piping.

The dimensions of the trench drain are estimated to be 1-ft wide by 1-ft deep by 30 ft long. The trench drain is approximately half full of sediment material that will need to be removed. Based on these dimensions and the amount of material present in the trench drain, the estimated quantity of sediment to be removed from the floor drain is 15 cubic feet (ft³), or approximately 0.6 cubic yards (yds³).

Confirmation soil samples will be collected from beneath the concrete trench drain and around the discharge piping as specified in Section 2.5 below. Soils will be analyzed for the presence of PCB contamination through a certified laboratory in accordance with the requirements provided in the SAP (Appendix B). PCB detections less than or equal to 1.0 ppm will be left in place. Soil levels greater than 1.0 ppm will be addressed as discussed in section 2.5.

In the event that the confirmation soil testing beneath the concrete trench drain results in detected PCB concentrations of greater than 1.0 ppm, the impacted subsurface soil will be excavated (width of bucket by 1-foot depth or 90 ft³ or 3.3 cy) and placed in approved containers for disposal. Additional confirmation sampling of the excavation sidewalls from the locations where the PCB-impacted soil was removed will be tested and analyzed for PCBs. This procedure will continue until PCB impacts are at or below the 1.0 ppm threshold.

2.4.2 Maintenance Garage Concrete Slab Demolition

Based on the results of the concrete confirmation sampling to be performed at the former Maintenance building, the concrete slab will either be crushed on-site to be used as a granular fill material, or disposed of off-site at a permitted landfilling facility.

Concrete dust and chip samples collected from the Maintenance Building concrete slab revealed detections of PCBs ranging from 42.0 ppm to 280 ppm. Based on these levels the City of Ogdensburg has requested that the entire concrete slab be demolished and removed. The contractor will be responsible for the demolition and disposal of this material at an approved hazardous waste landfilling facility. . As previously stated, concrete material with detected PCB levels greater than 1.0 ppm and below 50 ppm will require disposal at a the DANC solid waste management facility, while concrete material with PCB concentrations in excess of 50 ppm will require disposal at a permitted hazardous waste facility.

2.4.3 MH-1 and MH-2 Demolition and Removal

Locations MH-1 and MH-2 and the associated discharge piping will be excavated and removed. Since the results of recent subsurface investigations have determined that PCB levels around the structures are below the 1 ppm threshold, excavation of the structure will be limited to only what is necessary to remove MH-1 and MH-2. Soils are not anticipated to be impacted by VOCs based on historical results collected from subsurface boring investigations completed around both MH-1 and MH-2 structures. Although VOCs are not anticipated, soils will be screened utilizing a photoionization detector (PID) for the presence of volatiles during subsurface excavation activities. Materials removed from MH-1 and MH-2 excavations will be stored on two layers of 6 mil polyethylene sheeting for testing and disposal. It is anticipated that excavated soils will be temporarily staged on the former Shed No. 3 asphalt slab, to the west of the Maintenance Garage, providing for easy access and clean-up. Soils will be covered at the end of the day with 6-mil polyethylene sheeting to protect the material from precipitation and wind. Confirmation samples of the MH structures will be completed as outlined in section 2.5.

Based on the distance from the trench drain in the former Maintenance Building and MH-1 and MH-2 structures, it is estimated that approximately 145 feet of discharge piping exists. The dimensions of the trench that will be excavated for the removal of the discharge piping is estimated to be approximately 3 feet wide by 5 feet deep by 145 feet long. This equates to approximately 2175 ft³ or 81 CY of soil that must be excavated in order to gain access to the discharge piping for cleaning and disposal.

Soil around the trench drain, MH-1, MH-2, and associated discharge piping will be tested for the presence of PCB contamination as well as screened with a PID for the presence of VOCs. Soils with a PCB concentration of 1.0 ppm or less will be left in place, while soils with a detected PCB concentration of greater than 1.0 ppm will require further remediation.

Until the confirmation results of the trench drain, MH-1, MH-2, and underground discharge piping excavation areas have been received, perimeter snow fence will be placed around the open excavations to protect personnel from accidentally entering the excavation. Additional security measures are also currently in place with perimeter fencing surrounding the site. Visible signage has been placed on the perimeter fencing by the City of Ogdensburg notifying the public to keep out.

2.4.4 Shallow Surface Soil Remediation

Two areas around the perimeter of the Maintenance Garage concrete slab were identified to have low level PCB impacts. A total of 27 shallow surface soil samples were collected with 5 locations slightly exceeding the 1.0 ppm regulatory threshold. Sample locations MB-SS-07, 09, 17, 18, and 19 had reported PCB concentrations of 1.1 ppm, 1.9 ppm, 1.9 ppm, 3.2 ppm, and 2.1 ppm, respectively. Following demolition of the Maintenance Garage concrete slab, two (2) small areas of PCB “hotspot” excavation will occur. The extent of the excavation is estimated to be approximately 10 ft wide x 10 ft long x 2 ft deep at both locations. Based on these dimensions, approximately 400 ft³ or 15 CY of soil will be excavated for disposal.

2.4.5 Contingency Plan for Unanticipated PCB Contamination

In the event that previously unidentified PCB contamination is encountered during the IRM/SICP work at the Shade Roller site, affected material will be left in place until confirmation sampling can be completed and PCB concentrations determined. Sampling of assumed areas of impact will be completed in accordance with guidelines established in 40 CFR 761 Subpart N. The area of assumed PCB impact will be cordoned off until the results of the PCB analysis are received and confirmed.

If the area is determined to be impacted by PCBs, the appropriate level of safety precautions will be used in handling and disposal of material. Subsequent to clean-up activities, confirmation sampling will be collected in accordance with the sampling frequency established in Section 2.5 below.

2.5 Environmental Analytical Testing Program

2.5.1 Confirmation Soil Sample Frequency and Locations

The number of soil confirmation samples to be collected by B&L staff following the removal of the aforementioned structures will be in accordance with the sampling frequency guidelines established in 40 CFR 761 Subpart O. Specifically, in accordance with the provisions of 761 Subpart O – Sampling to Verify Completion of Self-Implementing Cleanup, a minimum of 3 samples from each type of bulk PCB remediation waste will be collected. Based on this sampling protocol, samples of concrete, soil from beneath the Maintenance Building slab, MH-1 and MH-2 structures, discharge pipe, and sediment from within the discharge pipe will be collected. Soil

sample locations will be bias towards areas of suspected contamination, if encountered when sampling.

Since it is known that PCBs were discharged to the trench drain, as supported by the analytical data from sampling location SED-2, coupled with the unknown condition of the trench drain, it is proposed that soil samples be collected from beneath the trench drain. Soil samples will be collected using a square based grid pattern (3 meter x 3 meter, where appropriate) as specified in Part 761 Subpart O. The grid shall be oriented such that the axes of the grid are located on a magnetic north-south line centered in the sampling area and an east-west axis perpendicular to the magnetic north-south axis. Samples will be collected in every direction to the extent sufficient to result in a two-dimensional grid completely overlaying the remediated area.. The proposed sampling grid has been provided in Figure 7.

Based on the results of the subsurface investigation conducted from the trench drain area in the former Maintenance Garage (specifically PCB-7 and PCB-8), it is not anticipated that PCB contamination will be present in the soils beneath the trench drain (Figure 3 and 5).

Confirmation soil sampling below the discharge piping to MH-1 and MH-2 structures will also be tested at a proposed frequency of 1 sample per 10 feet of pipe removed. Analytical data results from subsurface investigations completed on a 3 meter by 3 meter grid pattern indicated that PCB impacts above the 1 ppm threshold are not present on either side of the pipe or MH structures, and therefore an extensive confirmation grid sampling pattern does not appear to be warranted at these locations. The underground discharge pipe will be chased until pipe termination is encountered. It is suspected that the pipe termination is buried along the shoreline of the St. Lawrence River.

Following the excavation and removal of MH-1 and MH-2, soil clearance samples will be collected from the base of the excavation. As previously stated, soil borings collected around the MH-1 and MH-2 structures on a 3 meter by 3 meter grid did not detect PCBs in excess of the 1.0 ppm threshold, therefore the collection of sidewall samples for PCB analysis will not be performed. Based on the anticipated size of the excavation it is likely that a grid interval of 1.0 meter will be too large and a smaller grid system will be required. At a minimum, 3 samples from the base of the excavation will be collected.

The Maintenance Garage concrete floor has been sampled from five separate locations with results ranging from 42.0 ppm to 280 ppm (CS-13 and MBCS-1 through MBCS-4) (Figure 4). Based on the results, the City has decided to demolish the slab and dispose of the rubble at an appropriate landfilling facility. Prior to disposal, the selected contractor will be required to perform composite sampling of the concrete rubble to determine if the material is hazardous or nonhazardous.

2.5.2 Confirmation Soil Sample Collection

Based on the length of the trench drain (30 feet) and associated discharge piping (145 feet) in the vicinity of the former Maintenance Building, it is estimated that a total of 175 linear feet of trench drain and underground discharge piping will be exposed and removed, and the underlying soils tested for PCB impacts. Given the sampling frequency of 1 sample per 3 meters, it is anticipated that a total of twenty-three (23) confirmation soil samples will be collected and analyzed for the presence of PCBs along with VOCs, SVOCs, and Metals. In addition, a minimum of three (3) excavation bottom soil samples (for PCBs) will be collected following the removal of each MH structure. PCB samples are not anticipated to be collected from the excavation sidewalls of the pipe trench and MH structures since previous investigations show that PCBs in excess of the 1.0 ppm threshold are not present around the discharge pipe and MH structures.

Following the Maintenance Garage concrete slab removal, soil samples from approximately 14 locations will be collected for PCB analysis.

In the event that PCB testing results for the aforementioned areas are greater than 1.0 ppm, additional excavation and testing will be conducted as necessary until a soil cleanup objective of 1.0 ppm or less is achieved. Soil concentrations of PCBs in excess of 1.0 ppm will be removed from the site and disposed of at the DANC Landfill. Soil concentrations of PCBs in excess of 50 ppm will be disposed of at a permitted hazardous waste disposal facility.

Additional confirmation testing of VOCs, SVOCs, and metals will be collected at the frequency defined above. If VOCs, SVOCs, and metal exceedance greater than NYSDEC Part 375 restricted residential clean-up values are encountered additional soil excavation may be required as determined by the Owner.

2.5.3 Sample Analysis

Samples will be analyzed for PCBs by USEPA Method 8082. Additional confirmation sampling of VOCs, SVOCs, and metals will be analyzed for USEPA Methods 8260, 8270, and 6010B, respectively. A Quality Assurance/Quality Control (QA/QC) Plan is included in the Sampling and Analysis Plan (Appendix B).

3.0 DOCUMENTATION OF REMEDIAL ACTIVITIES

B&L will be providing oversight of IRM and PCB-remediation activities, both for technical and contract management purposes. Daily logs of activities will be prepared and will become part of the project file. At a minimum, the daily log will include:

- Date
- Weather
- Personnel present
- Visitors
- Time referenced descriptions of work performed
- Sample collection
- Field measurements
- Problems encountered
- Corrective actions
- Changes or modifications to work scope
- Injuries
- Photographs

4.0 REPORT ON REMEDIAL ACTIVITIES

After completion of the remedial work and receipt of documentation, a summary report will be prepared. At a minimum, the report will include:

- Narrative summary of the work performed
- Results of sample analyses
- Sample location figures
- Pertinent photographs
- Disposal manifests/certificates

5.0 QUALITY ASSURANCE/QUALITY CONTROL

The Quality Assurance/Quality Control Plan for this work is provided in Sampling and Analysis Plan (Appendix B).

6.0 HEALTH AND SAFETY PROTOCOLS

The work described in this work plan is subject to regulation under 29CFR 1910.120 – Hazardous Waste Operations and Emergency Response (HAZWOPER). A Health & Safety Plan (HASP) for Barton & Loguidice personnel is included in Appendix A. The selected remedial contractor will be required to submit their own project-specific HASP as well as documentation that their project personnel have been trained in accordance with 29 CFR 1919.120.

7.0 CITIZEN PARTICIPATION

The Citizen Participation component for work at the former Standard Shade Roller site is discussed in the Citizen Participation Plan (CPP) provided in Appendix C.

8.0 PRELIMINARY REMEDIAL CONSTRUCTION SCOPING AND SEQUENCE

8.1 Preliminary Sequence

The selected remedial contractor will provide a detailed project schedule, which will be subject to review and approval by the City of Ogdensburg, B&L, NYSDEC and USEPA. Provided below is a summary of the scope and preliminary sequence of remedial construction activities.

Area	Description of Activity	Amount
All	Contractor mobilization	1
MG	Clean Floor Drain	15 ft ³
MG	Demolition of concrete trench drain	90 ft ²
MG	Transport and disposal of trench drain sediment/sludge (>50ppm)	3 drums
MG	Transport and disposal of concrete (>50ppm)	1 ton
MG	Transport and disposal of concrete (>1ppm <50ppm)	10 ton
DW	Excavation of MH-1 and MH-2	45 cy
DW	Excavation of drain pipe	80 cy
DW	Transport and disposal of drain pipe, MH-1, MH-2 sediment/sludge (PCB concentration assumed >1ppm <50ppm)	70 ton
MB	Demolition and removal of concrete floor (excludes floor drain concrete)	2,160 ft ²
MG	Excavation of low level PCB hot spots around Maintenance Garage foundation	15 CY
ALL	Clearance PCB sampling (includes MS/MSD and Blind Duplicate)	30
ALL	Community Air Monitoring Program	1
MG = Maintenance Garage DW = Dry Well DP = Drain Pipe NA = Not Applicable		

8.2 Remedial Action Cost

Appendix D contains the cost estimate for the remedial program described in this work plan. The table below summarizes the opinion of probable costs.

Summary of Remedial Alternative Costs				
Project Identification	Capital Costs	Engineering & Laboratory	Contingency Costs	Total Opinion of Probable Cost
Former Standard Shade Roller Factory	\$175,243	\$17,524	\$17,524	\$210,292

9.0 LONG-TERM SITE MANAGEMENT

It is the intent of this self-implementing cleanup plan to remediate soils to a threshold of 1 ppm or less. Based on these established cleanup goals, we do not believe that institutional controls will be required for this IRM.

Figure 1

Site Location Map

Figure 2

Site Plan

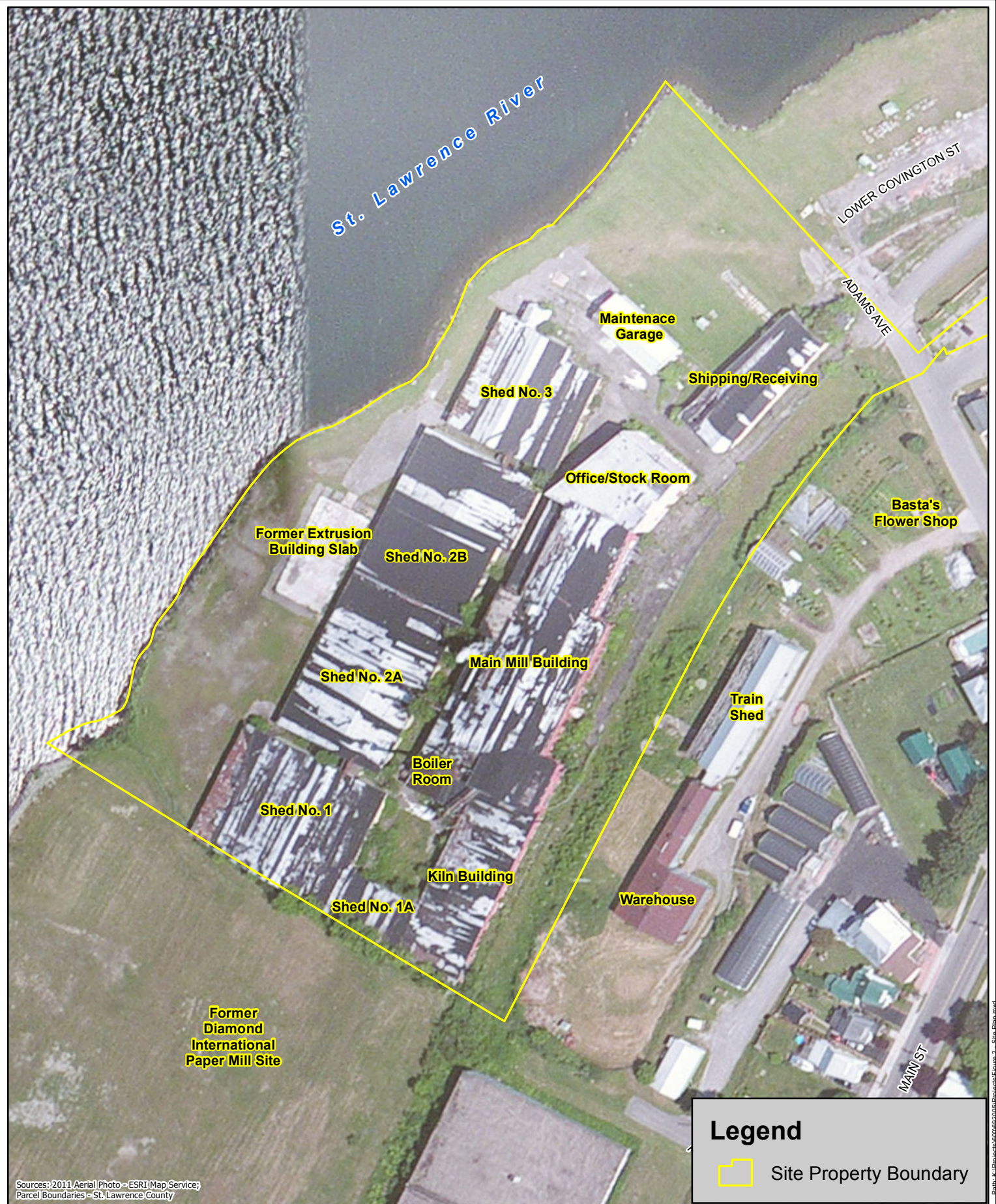


Figure 3

PCB Boring and Test Pit Locations

Plotted: Oct 21, 2021 - 2:22PM
Z:\NL-Vault\ID2\18217A02-1C71-4823-8927-9903C054147\0\2445000-2445999\2445045\1\692022 FIG03 PCB Boring and Test Pit Locations (ID 2445045).dwg
SYR By: WBG
Drawn by: WBG
Designed by: AZ
In charge of: SDN
Checked by:

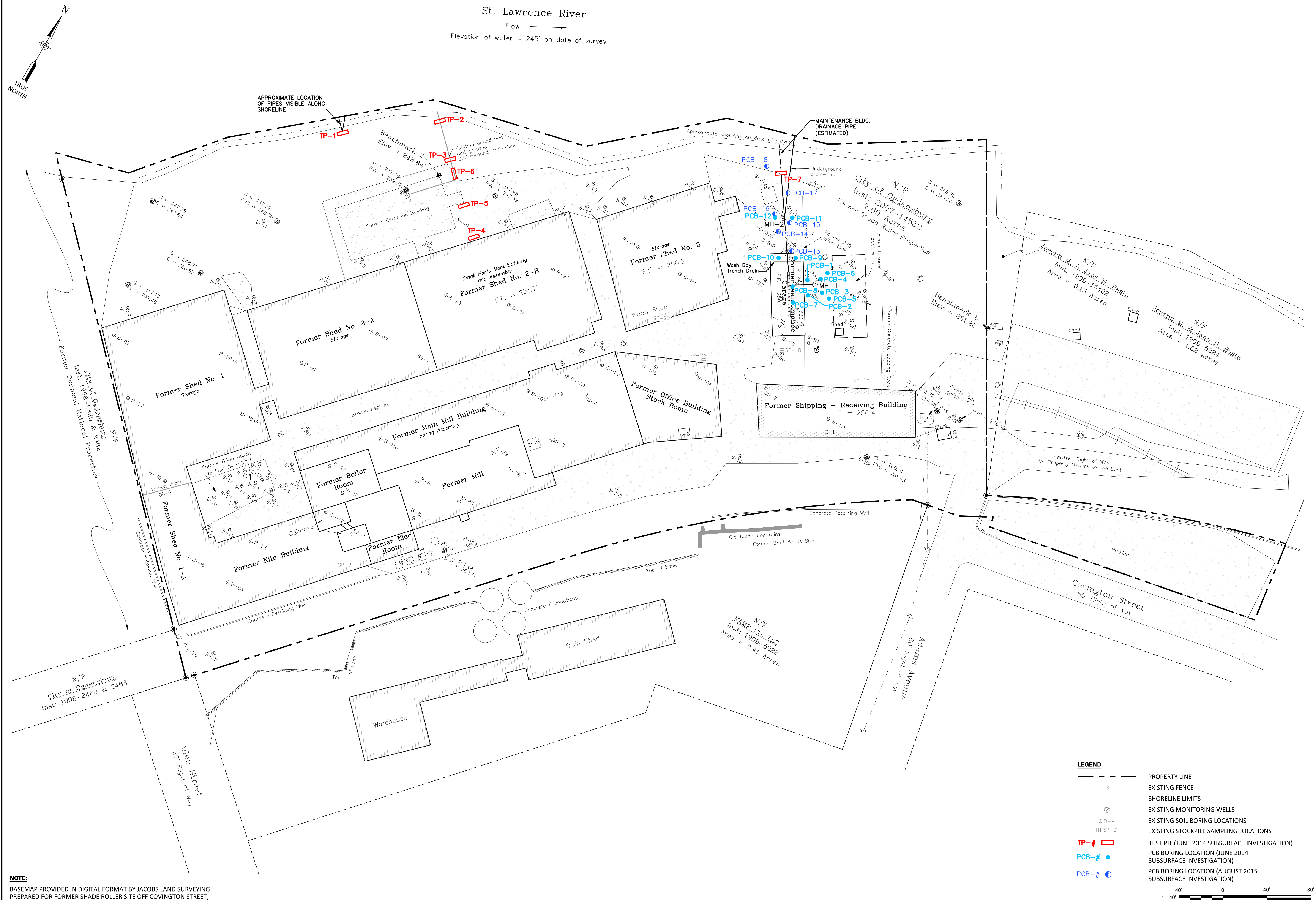


Figure 4

Sediment and Concrete Exceedances Location Plan

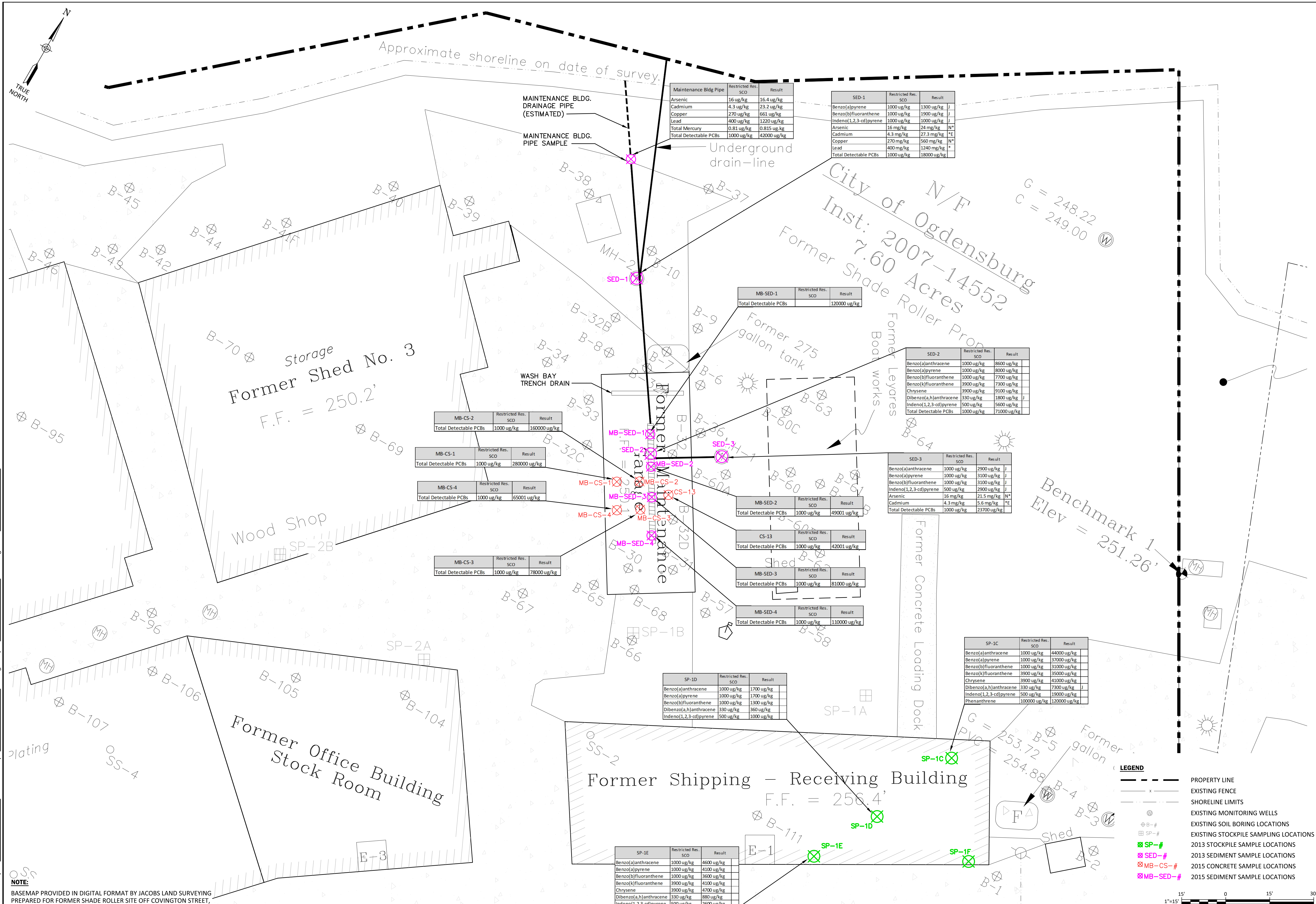
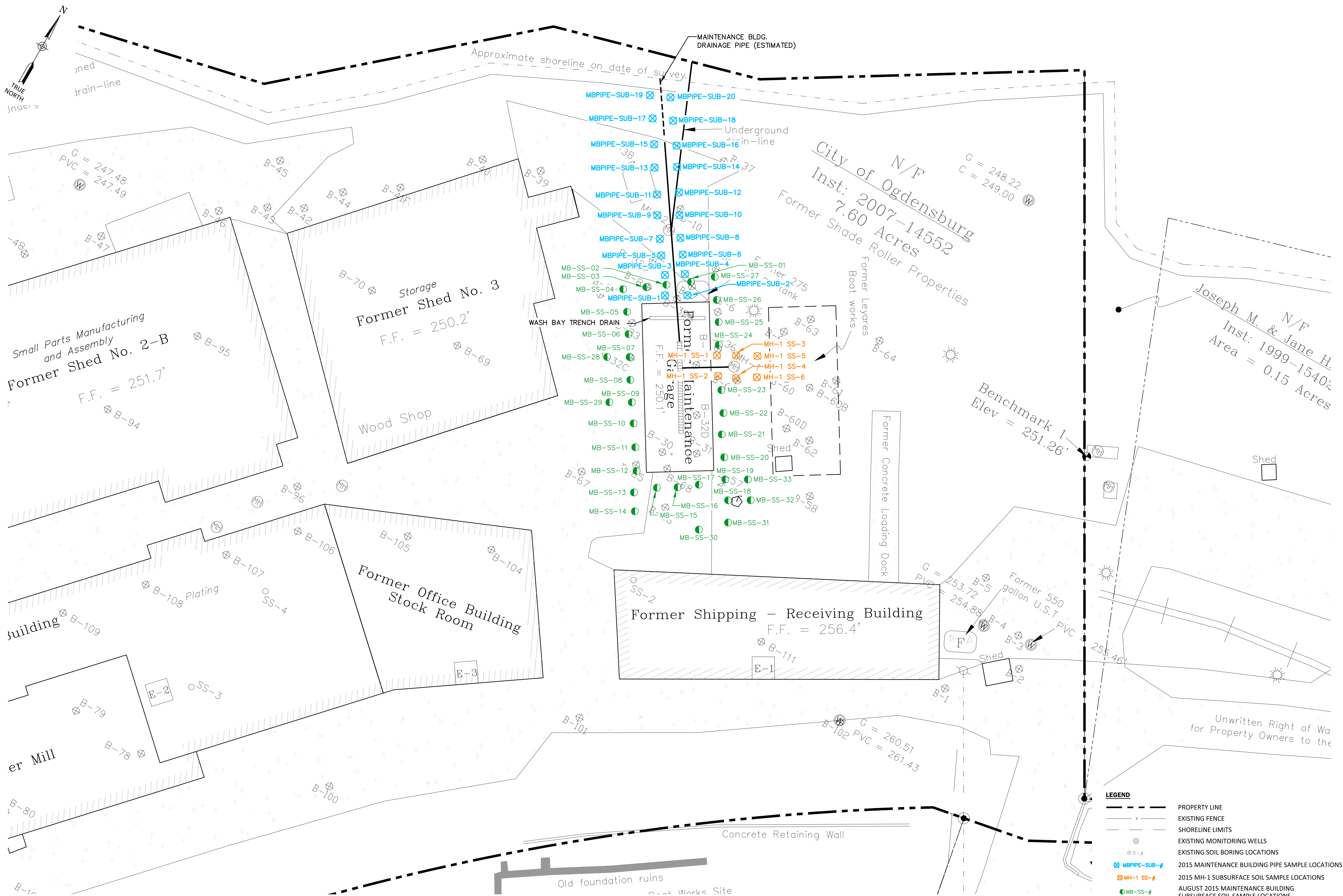


Figure 5

Shallow Surface Soil PCB Sampling Location Plan

Plotted: Oct 21, 2021 - 1:26PM
Z:\BL-Vault\02\16217A02-1C71-4823-8927-9903C054147\0 2445000-2445999\2445132\1\1\692022 FIG05 Shallow Surface Soil PCB Sampling Location Plan (ID 2445132).dwg
SYR By: WBG
Drawn by: WBG
Designed by: AZ
In charge of: SDN
Checked by:



NOTE:
BASEMAP PROVIDED IN DIGITAL FORMAT BY JACOBS LAND SURVEYING
PREPARED FOR FORMER SHADE ROLLER SITE OFF COVINGTON STREET,
DATED AUGUST 10, 2010.

IT IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW, ARTICLE 145 §7209 SPECIAL PROVISIONS, FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED, THE ALTERING PROFESSIONAL SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS	

CITY OF OGDENSBURG
FORMER STANDARD SHADE ROLLER SITE

**SHALLOW SURFACE SOIL
PCB SAMPLING LOCATION PLAN**

ST. LAWRENCE COUNTY, NEW YORK

443 Electronics Parkway
Liverpool, NY
13088

B&L

Barton & Loguidice, D.P.C.

Date
OCTOBER 2021

Scale
1" = 20'

Sheet Number
5

Project Number
692.022.001

Figure 6

Boring Exceedances Location Plan

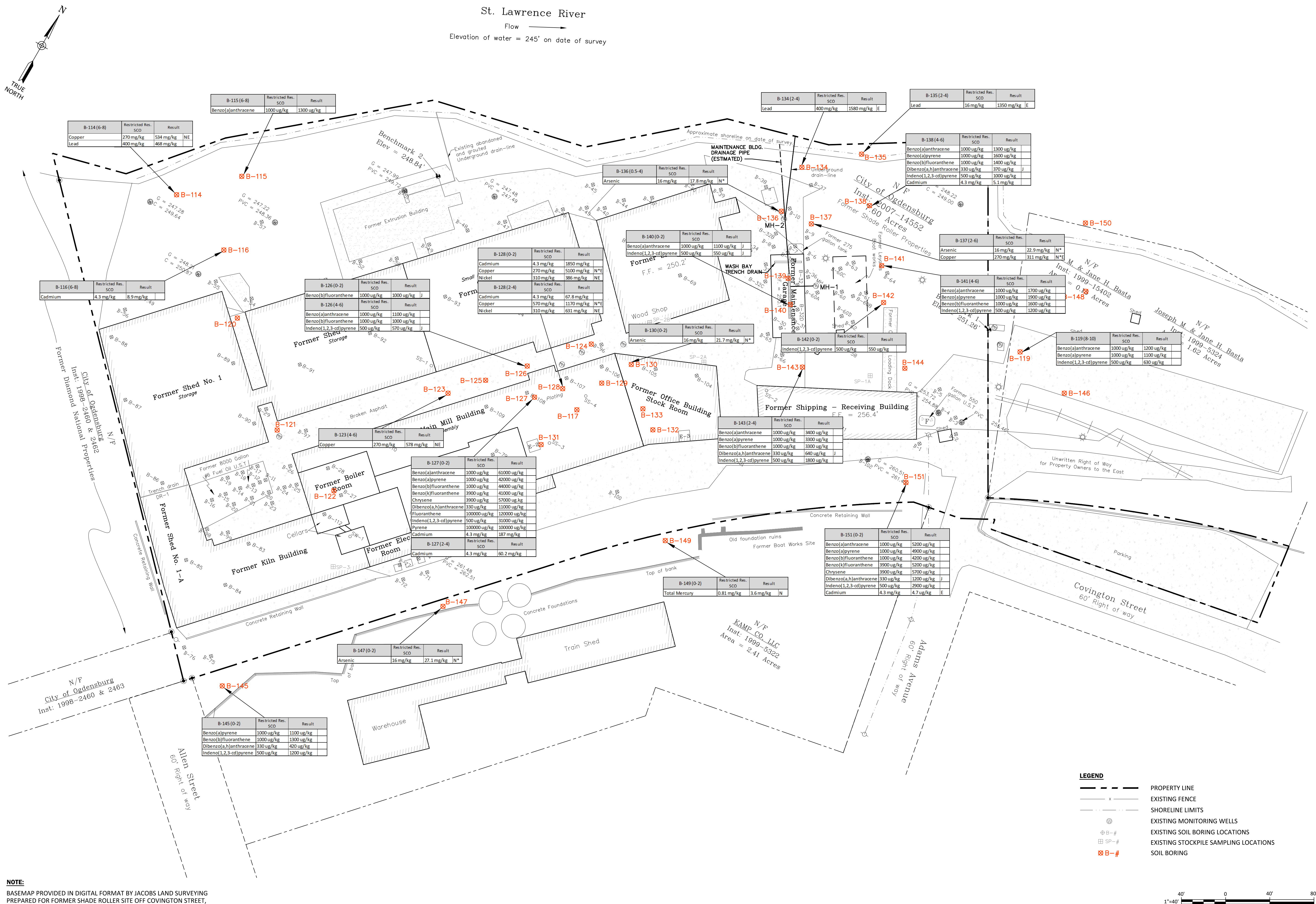


Figure 7

Proposed PCB Confirmation Sampling Location Plan

Table 1

PCB Sampling Results Summary

TABLE 1
PCB Sampling Results Summary
City of Ogdensburg - Former Standard Shade Roller Site

PCB Sample Results				LAB ID: Sample: R1404656-001 PCB-1			R1404656-002 PCB-1			R1404656-003 PCB-2			R1404656-004 PCB-2		
High Occupancy Use Guidance Criteria				Sample Depth/Date: 2.5-4.0 ft			6/19/2014			6/19/2014			6/19/2014		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
Aroclor1016	12674-11-2	- -	UG/KG	330	U	5	230	U	5	320	U	5	220	U	5
Aroclor1221	11104-28-2	- -	UG/KG	670	U	5	460	U	5	640	U	5	460	U	5
Aroclor1232	11141-16-5	- -	UG/KG	330	U	5	230	U	5	320	U	5	220	U	5
Aroclor1242	53469-21-9	- -	UG/KG	330	U	5	230	U	5	320	U	5	220	U	5
Aroclor1248	12672-29-6	- -	UG/KG	330	U	5	230	U	5	320	U	5	220	U	5
Aroclor1254	11097-69-1	- -	UG/KG	330	U	5	230	U	5	320	U	5	220	U	5
Aroclor1260	11096-82-5	- -	UG/KG	330	U	5	230	U	5	320	U	5	220	U	5
TOTAL DETECTABLE	1336-36-3	1,000 -	UG/KG	0			0			0			0		

PCB Sample Results				LAB ID: Sample: R1404656-005 PCB-3			R1404656-006 PCB-3			R1404656-007 PCB-4			R1404656-008 PCB-4		
High Occupancy Use Guidance Criteria				Sample Depth/Date: 3.0-4.0 ft			6/19/2014			6/19/2014			6/19/2014		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
Aroclor1016	12674-11-2	- -	UG/KG	300	U	5	210	U	5	240	U	5	230	U	5
Aroclor1221	11104-28-2	- -	UG/KG	610	U	5	430	U	5	490	U	5	470	U	5
Aroclor1232	11141-16-5	- -	UG/KG	300	U	5	210	U	5	240	U	5	230	U	5
Aroclor1242	53469-21-9	- -	UG/KG	300	U	5	210	U	5	240	U	5	230	U	5
Aroclor1248	12672-29-6	- -	UG/KG	300	U	5	210	U	5	240	U	5	230	U	5
Aroclor1254	11097-69-1	- -	UG/KG	300	U	5	210	U	5	240	U	5	230	U	5
Aroclor1260	11096-82-5	- -	UG/KG	300	U	5	210	U	5	240	U	5	230	U	5
TOTAL DETECTABLE	1336-36-3	1,000 -	UG/KG	0			0			0			0		

PCB Sample Results				LAB ID: Sample: R1404656-009 PCB-5			R1404656-010 PCB-5			R1404656-011 PCB-6			R1404656-012 PCB-6		
High Occupancy Use Guidance Criteria				Sample Depth/Date: 2.0-4.0 ft			6/19/2014			6/19/2014			6/19/2014		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
Aroclor1016	12674-11-2	- -	UG/KG	200	U	5	190	U	5	190	U	5	260	U	5
Aroclor1221	11104-28-2	- -	UG/KG	410	U	5	390	U	5	390	U	5	540	U	5
Aroclor1232	11141-16-5	- -	UG/KG	200	U	5	190	U	5	190	U	5	260	U	5
Aroclor1242	53469-21-9	- -	UG/KG	200	U	5	190	U	5	190	U	5	260	U	5
Aroclor1248	12672-29-6	- -	UG/KG	200	U	5	190	U	5	190	U	5	260	U	5
Aroclor1254	11097-69-1	- -	UG/KG	200	U	5	190	U	5	190	U	5	260	U	5
Aroclor1260	11096-82-5	- -	UG/KG	200	U	5	190	U	5	190	U	5	260	U	5
TOTAL DETECTABLE	1336-36-3	1,000 -	UG/KG	0			0			0			0		

TABLE 1
PCB Sampling Results Summary
City of Ogdensburg - Former Standard Shade Roller Site

PCB Sample Results				LAB ID: Sample: R1404656-014 PCB-7			R1404656-015 PCB-7			R1404656-016 PCB-8			R1404656-017 PCB-8		
High Occupancy Use Guidance Criteria				Sample Depth/Date: 0.8-4.0 ft 6/19/2014			4.0-8.0 ft 6/19/2014			0.9-4.0 ft 6/19/2014			4.0-8.0 ft 6/19/2014		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
Aroclor1016	12674-11-2	- -	UG/KG	200	U	5	230	U	5	190	U	5	250	U	5
Aroclor1221	11104-28-2	- -	UG/KG	400	U	5	470	U	5	390	U	5	500	U	5
Aroclor1232	11141-16-5	- -	UG/KG	200	U	5	230	U	5	190	U	5	250	U	5
Aroclor1242	53469-21-9	- -	UG/KG	200	U	5	230	U	5	190	U	5	250	U	5
Aroclor1248	12672-29-6	- -	UG/KG	200	U	5	230	U	5	190	U	5	250	U	5
Aroclor1254	11097-69-1	- -	UG/KG	200	U	5	230	U	5	190	U	5	250	U	5
Aroclor1260	11096-82-5	- -	UG/KG	200	U	5	230	U	5	190	U	5	250	U	5
TOTAL DETECTABLE				1336-36-3 1,000 - UG/KG			0			0			0		

PCB Sample Results				LAB ID: Sample: R1404656-018 PCB-9			R1404656-019 PCB-9			R1404656-020 PCB-10			R1404656-021 PCB-10		
High Occupancy Use Guidance Criteria				Sample Depth/Date: 0.6-4.0 ft 6/19/2014			4.0-8.0 ft 6/19/2014			0.6-4.0 ft 6/19/2014			4.0-8.0 ft 6/19/2014		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
Aroclor1016	12674-11-2	- -	UG/KG	180	U	5	190	U	5	320	U	5	190	U	5
Aroclor1221	11104-28-2	- -	UG/KG	370	U	5	390	U	5	640	U	5	390	U	5
Aroclor1232	11141-16-5	- -	UG/KG	180	U	5	190	U	5	320	U	5	190	U	5
Aroclor1242	53469-21-9	- -	UG/KG	180	U	5	190	U	5	320	U	5	190	U	5
Aroclor1248	12672-29-6	- -	UG/KG	180	U	5	190	U	5	320	U	5	190	U	5
Aroclor1254	11097-69-1	- -	UG/KG	180	U	5	190	U	5	320	U	5	190	U	5
Aroclor1260	11096-82-5	- -	UG/KG	180	U	5	190	U	5	320	U	5	190	U	5
TOTAL DETECTABLE				1336-36-3 1,000 - UG/KG			0			0			0		

PCB Sample Results				LAB ID: Sample: R1404656-022 PCB-11			R1404656-023 PCB-11			R1404656-024 PCB-12			R1404656-024 PCB-12		
High Occupancy Use Guidance Criteria				Sample Depth/Date: 0.6-4.0 ft 6/24/2014			4.0-8.0 ft 6/24/2014			0.6-4.0 ft 6/24/2014			0.6-4.0 ft 6/24/2014		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
Aroclor1016	12674-11-2	- -	UG/KG	200	U	5	240	U	5	190	U	5	190	U	5
Aroclor1221	11104-28-2	- -	UG/KG	410	U	5	480	U	5	390	U	5	390	U	5
Aroclor1232	11141-16-5	- -	UG/KG	200	U	5	240	U	5	190	U	5	190	U	5
Aroclor1242	53469-21-9	- -	UG/KG	200	U	5	240	U	5	190	U	5	190	U	5
Aroclor1248	12672-29-6	- -	UG/KG	200	U	5	240	U	5	190	U	5	190	U	5
Aroclor1254	11097-69-1	- -	UG/KG	140	J	5	240	U	5	190	U	5	190	U	5
Aroclor1260	11096-82-5	- -	UG/KG	200	U	5	240	U	5	190	U	5	190	U	5
TOTAL DETECTABLE				1336-36-3 1,000 - UG/KG			140			0			0		

TABLE 1
PCB Sampling Results Summary
City of Ogdensburg - Former Standard Shade Roller Site

PCB Sample Results				LAB ID: Sample: R1404656-025 PCB-12			R1506631-009 PCB-13 (0.4)			R1506631-010 PCB-14 (0.33-4.33)			R1506631-011 PCB-15 (0.33-4.33)		
High Occupancy Use Guidance Criteria				Sample Depth/Date: 4.0-8.0 ft 6/24/2014			0.4-4.0 ft 8/11/2015			0.33-4.33 ft 8/11/2015			0.33-4.33 ft 8/11/2015		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
Aroclor1016	12674-11-2	- -	UG/KG	260	U	5	37	U	1	41	U	1	42	U	1
Aroclor1221	11104-28-2	- -	UG/KG	540	U	5	74	U	1	83	U	1	85	U	1
Aroclor1232	11141-16-5	- -	UG/KG	260	U	5	37	U	1	41	U	1	42	U	1
Aroclor1242	53469-21-9	- -	UG/KG	260	U	5	37	U	1	41	U	1	42	U	1
Aroclor1248	12672-29-6	- -	UG/KG	260	U	5	37	U	1	41	U	1	42	U	1
Aroclor1254	11097-69-1	- -	UG/KG	260	U	5	37	U	1	41	U	1	42	U	1
Aroclor1260	11096-82-5	- -	UG/KG	260	U	5	37	U	1	41	U	1	42	U	1
TOTAL DETECTABLE				1336-36-3 1,000 - UG/KG			0			0			0		

PCB Sample Results				LAB ID: Sample: R1506633-012 PCB-16 (0.25-4.25)			R1506633-013 PCB-17 (0.25-4.25)			R1506633-014 PCB-18 (0.4)			R1503480-010 MB Pipe Sub-1		
High Occupancy Use Guidance Criteria				Sample Depth/Date: 0.25-4.25 ft 8/11/2015			0.25-4.25 ft 8/11/2015			0.4-4.0 ft 8/11/2015			0.5-1.5 ft 5/7/2015		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
Aroclor1016	12674-11-2	- -	UG/KG	39	U	1	38	U	1	37	U	1	34	U	1
Aroclor1221	11104-28-2	- -	UG/KG	79	U	1	77	U	1	74	U	1	70	U	1
Aroclor1232	11141-16-5	- -	UG/KG	39	U	1	38	U	1	37	U	1	34	U	1
Aroclor1242	53469-21-9	- -	UG/KG	39	U	1	38	U	1	37	U	1	34	U	1
Aroclor1248	12672-29-6	- -	UG/KG	39	U	1	38	U	1	37	U	1	34	U	1
Aroclor1254	11097-69-1	- -	UG/KG	39	U	1	38	U	1	71		1	23	J	1
Aroclor1260	11096-82-5	- -	UG/KG	39	U	1	38	U	1	24	JP	1	34	U	1
TOTAL DETECTABLE				1336-36-3 1,000 - UG/KG			0			95			23		

PCB Sample Results				LAB ID: Sample: R1503480-011 MB Pipe Sub-2			R1503480-012 MB Pipe Sub-3			R1503480-013 MB Pipe Sub-4			R1503480-014 MB Pipe Sub-5		
High Occupancy Use Guidance Criteria				Sample Depth/Date: 0.5-1.5 ft 5/7/2015			0.5-1.5 ft 5/7/2015			0.5-1.5 ft 5/7/2015			0.5-1.5 ft 5/7/2015		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
Aroclor1016	12674-11-2	- -	UG/KG	35	U	1	36	U	1	37	U	1	36	U	1
Aroclor1221	11104-28-2	- -	UG/KG	71	U	1	73	U	1	75	U	1	73	U	1
Aroclor1232	11141-16-5	- -	UG/KG	35	U	1	36	U	1	37	U	1	36	U	1
Aroclor1242	53469-21-9	- -	UG/KG	35	U	1	36	U	1	37	U	1	36	U	1
Aroclor1248	12672-29-6	- -	UG/KG	35	U	1	36	U	1	37	U	1	36	U	1
Aroclor1254	11097-69-1	- -	UG/KG	150		1	170			37	U	1	36	U	1
Aroclor1260	11096-82-5	- -	UG/KG	35	U	1	36	U	1	37	U	1	36	U	1
TOTAL DETECTABLE				1336-36-3 1,000 - UG/KG			150			0			0		

TABLE 1
PCB Sampling Results Summary
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PCB Sample Results				LAB ID: Sample: R1503480-015 MB Pipe Sub-6			R1503480-016 MB Pipe Sub-7			R1503480-017 MB Pipe Sub-8			R1503480-018 MB Pipe Sub-9		
High Occupancy Use Guidance Criteria				Sample Depth/Date: 0.5-1.5 ft 5/7/2015			0.5-1.5 ft 5/7/2015			0.5-1.5 ft 5/7/2015			0.5-1.5 ft 5/7/2015		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
Aroclor1016	12674-11-2	- -	UG/KG	36	U	1	37	U	1	37	U	1	36	U	1
Aroclor1221	11104-28-2	- -	UG/KG	74	U	1	74	U	1	74	U	1	73	U	1
Aroclor1232	11141-16-5	- -	UG/KG	36	U	1	37	U	1	37	U	1	36	U	1
Aroclor1242	53469-21-9	- -	UG/KG	36	U	1	37	U	1	37	U	1	36	U	1
Aroclor1248	12672-29-6	- -	UG/KG	36	U	1	37	U	1	37	U	1	36	U	1
Aroclor1254	11097-69-1	- -	UG/KG	36	U	1	37	U	1	81		1	200		1
Aroclor1260	11096-82-5	- -	UG/KG	36	U	1	37	U	1	37	U	1	36	U	1
TOTAL DETECTABLE				1336-36-3 1,000 - UG/KG			0			37			81		

PCB Sample Results				LAB ID: Sample: R1503480-019 MB Pipe Sub-10			R1503480-020 MB Pipe Sub-11			R1503480-021 MB Pipe Sub-12			R1503480-022 MB Pipe Sub-13		
High Occupancy Use Guidance Criteria				Sample Depth/Date: 0.5-1.5 ft 5/7/2015			0.5-1.5 ft 5/7/2015			0.5-1.5 ft 5/7/2015			0.5-1.5 ft 5/7/2015		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
Aroclor1016	12674-11-2	- -	UG/KG	36	U	1	36	U	1	36	U	1	36	U	1
Aroclor1221	11104-28-2	- -	UG/KG	73	U	1	73	U	1	72	U	1	72	U	1
Aroclor1232	11141-16-5	- -	UG/KG	36	U	1	36	U	1	36	U	1	36	U	1
Aroclor1242	53469-21-9	- -	UG/KG	36	U	1	36	U	1	36	U	1	36	U	1
Aroclor1248	12672-29-6	- -	UG/KG	36	U	1	36	U	1	36	U	1	36	U	1
Aroclor1254	11097-69-1	- -	UG/KG	54		1	36	PU	1	99		1	36	U	1
Aroclor1260	11096-82-5	- -	UG/KG	36	U	1	36	U	1	36	U	1	19	J	1
TOTAL DETECTABLE				1336-36-3 1,000 - UG/KG			54			0			99		

PCB Sample Results				LAB ID: Sample: R1503480-023 MB Pipe Sub-14			R1503480-024 MB Pipe Sub-15			R1503480-025 MB Pipe Sub-16			R1503480-026 MB Pipe Sub-17		
High Occupancy Use Guidance Criteria				Sample Depth/Date: 0.5-1.5 ft 5/7/2015			0.5-1.5 ft 5/7/2015			0.5-1.5 ft 5/7/2015			0.5-1.5 ft 5/7/2015		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
Aroclor1016	12674-11-2	- -	UG/KG	36	U	1	36	U	1	36	U	1	36	U	1
Aroclor1221	11104-28-2	- -	UG/KG	73	U	1	74	U	1	73	U	1	73	U	1
Aroclor1232	11141-16-5	- -	UG/KG	36	U	1	36	U	1	36	U	1	36	U	1
Aroclor1242	53469-21-9	- -	UG/KG	36	U	1	36	U	1	36	U	1	36	U	1
Aroclor1248	12672-29-6	- -	UG/KG	36	U	1	36	U	1	36	U	1	36	U	1
Aroclor1254	11097-69-1	- -	UG/KG	36	U	1	36	U	1	36	U	1	36	U	1
Aroclor1260	11096-82-5	- -	UG/KG	36	U	1	55	P	1	54	P	1	33	JP	1
TOTAL DETECTABLE				1336-36-3 1,000 - UG/KG			0			55			54		

TABLE 1
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PCB Sample Results				LAB ID: Sample: R1503480-027 MB Pipe Sub-18			R1503480-028 MB Pipe Sub-19			R1503480-029 MB Pipe Sub-20			R1503480-030 MH-1 SS-1		
High Occupancy Use Guidance Criteria				Sample Depth/Date: 0.5-1.5 ft 5/7/2015			0.5-1.5 ft 5/7/2015			0.5-1.5 ft 5/7/2015			0.5-1.5 ft 5/7/2015		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
Aroclor1016	12674-11-2	- -	UG/KG	38	U	1	73	U	2	36	U	1	360	U	10
Aroclor1221	11104-28-2	- -	UG/KG	77	U	1	150	U	2	73	U	1	740	U	10
Aroclor1232	11141-16-5	- -	UG/KG	38	U	1	73	U	2	36	U	1	360	U	10
Aroclor1242	53469-21-9	- -	UG/KG	38	U	1	73	U	2	36	U	1	360	U	10
Aroclor1248	12672-29-6	- -	UG/KG	38	U	1	73	U	2	36	U	1	360	U	10
Aroclor1254	11097-69-1	- -	UG/KG	250		1	390		2	200	P	1	720		10
Aroclor1260	11096-82-5	- -	UG/KG	150	P	1	73	U	2	110	P	1	360	U	10
TOTAL DETECTABLE				1336-36-3 1,000 - UG/KG			400			390			310		

PCB Sample Results				LAB ID: Sample: R1503480-031 MH-1 SS-2			R1503480-032 MH-1 SS-3			R1503480-033 DUPE-Y (MH-1 SS-3)			R1503480-034 MH-1 SS-4		
High Occupancy Use Guidance Criteria				Sample Depth/Date: 0.5-1.5 ft 5/7/2015			0.5-1.5 ft 5/7/2015			0.5-1.5 ft 5/7/2015			0.5-1.5 ft 5/7/2015		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
Aroclor1016	12674-11-2	- -	UG/KG	190	U	5	37	U	1	37	U	1	37	U	1
Aroclor1221	11104-28-2	- -	UG/KG	380	U	5	76	U	1	76	U	1	74	U	1
Aroclor1232	11141-16-5	- -	UG/KG	190	U	5	37	U	1	37	U	1	37	U	1
Aroclor1242	53469-21-9	- -	UG/KG	190	U	5	37	U	1	37	U	1	37	U	1
Aroclor1248	12672-29-6	- -	UG/KG	190	U	5	37	U	1	37	U	1	37	U	1
Aroclor1254	11097-69-1	- -	UG/KG	650		5	110		1	51		1	110	P	1
Aroclor1260	11096-82-5	- -	UG/KG	190	U	5	22	JP	1	37	U	1	79		1
TOTAL DETECTABLE				1336-36-3 1,000 - UG/KG			650			132			51		

PCB Sample Results				LAB ID: Sample: R1503480-035 MH-1 SS-5			R1503480-036 MH-1 SS-6			R1506531-001 MB-SS-01			R1506531-002 MB-SS-02		
High Occupancy Use Guidance Criteria				Sample Depth/Date: 0.5-1.5 ft 5/7/2015			0.5-1.5 ft 5/7/2015			8/6/2015			8/6/2015		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
Aroclor1016	12674-11-2	- -	UG/KG	36	U	1	38	U	1	36	U	1	35	U	1
Aroclor1221	11104-28-2	- -	UG/KG	74	U	1	77	U	1	73	U	1	71	U	1
Aroclor1232	11141-16-5	- -	UG/KG	36	U	1	38	U	1	36	U	1	35	U	1
Aroclor1242	53469-21-9	- -	UG/KG	36	U	1	38	U	1	36	U	1	35	U	1
Aroclor1248	12672-29-6	- -	UG/KG	36	U	1	38	U	1	36	U	1	35	U	1
Aroclor1254	11097-69-1	- -	UG/KG	42	P	1	71		1	36	U	1	22	J	1
Aroclor1260	11096-82-5	- -	UG/KG	36	U	1	31	J	1	36	U	1	35	U	1
TOTAL DETECTABLE				1336-36-3 1,000 - UG/KG			42			102			0		

TABLE 1
PCB Sampling Results Summary
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PCB Sample Results				LAB ID: Sample: R1506531-003 MB-SS-03			R1506531-004 MB-SS-04			R1506531-005 MB-SS-05			R1506531-006 MB-SS-06		
High Occupancy Use Guidance Criteria				Sample Depth/Date:			8/6/2015			8/6/2015			8/6/2015		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
CAS	RSCO	Comment													
Aroclor1016	12674-11-2	- -	UG/KG	35	U	1	35	U	1	36	U 1		67	U	2
Aroclor1221	11104-28-2	- -	UG/KG	71	U	1	71	U	1	73	U 1		140	U	2
Aroclor1232	11141-16-5	- -	UG/KG	35	U	1	35	U	1	36	U 1		67	U	2
Aroclor1242	53469-21-9	- -	UG/KG	35	U	1	35	U	1	36	U 1		67	U	2
Aroclor1248	12672-29-6	- -	UG/KG	35	U	1	35	U	1	36	U 1		67	U	2
Aroclor1254	11097-69-1	- -	UG/KG	35	U	1	43	P	1	52	P 1		330		2
Aroclor1260	11096-82-5	- -	UG/KG	35	U	1	27	J	1	36	U 1		51	JP	2
TOTAL DETECTABLE				1336-36-3			1,000 -			UG/KG			0		

PCB Sample Results				LAB ID: Sample: R1506531-007 MB-SS-07			R1506531-008 MB-SS-08			R1506531-009 MB-SS-09			R1506531-010 MB-SS-10		
High Occupancy Use Guidance Criteria				Sample Depth/Date:			8/6/2015			8/6/2015			8/6/2015		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
CAS	RSCO	Comment													
Aroclor1016	12674-11-2	- -	UG/KG	170	U	5	69	U	2	180	U	5	180	U	5
Aroclor1221	11104-28-2	- -	UG/KG	340	U	5	140	U	2	360	U	5	360	U	5
Aroclor1232	11141-16-5	- -	UG/KG	170	U	5	69	U	2	180	U	5	180	U	5
Aroclor1242	53469-21-9	- -	UG/KG	170	U	5	69	U	2	180	U	5	180	U	5
Aroclor1248	12672-29-6	- -	UG/KG	170	U	5	69	U	2	180	U	5	180	U	5
Aroclor1254	11097-69-1	- -	UG/KG	880		5	450		2	1400		5	820		5
Aroclor1260	11096-82-5	- -	UG/KG	240	P	5	140	P	2	450	P	5	180	U	5
TOTAL DETECTABLE				1336-36-3			1,000 -			UG/KG			1120		

PCB Sample Results				LAB ID: Sample: R1506531-011 MB-SS-11			R1506531-012 MB-SS-12			R1506531-013 MB-SS-13			R1506531-014 MB-SS-14		
High Occupancy Use Guidance Criteria				Sample Depth/Date:			8/6/2015			8/6/2015			8/7/2015		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
CAS	RSCO	Comment													
Aroclor1016	12674-11-2	- -	UG/KG	70	U	2	34	U	1	35	U	1	70	U	2
Aroclor1221	11104-28-2	- -	UG/KG	140	U	2	69	U	1	71	U	1	140	U	2
Aroclor1232	11141-16-5	- -	UG/KG	70	U	2	34	U	1	35	U	1	70	U	2
Aroclor1242	53469-21-9	- -	UG/KG	70	U	2	34	U	1	35	U	1	70	U	2
Aroclor1248	12672-29-6	- -	UG/KG	70	U	2	34	U	1	35	U	1	70	U	2
Aroclor1254	11097-69-1	- -	UG/KG	430		2	37		1	110		1	410		2
Aroclor1260	11096-82-5	- -	UG/KG	72	P	2	34	U	1	35	U	1	72		2
TOTAL DETECTABLE				1336-36-3			1,000 -			UG/KG			502		

TABLE 1
PCB Sampling Results Summary
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PCB Sample Results				LAB ID: Sample: R1506531-015 MB-SS-15			R1506531-016 MB-SS-16			R1506531-017 MB-SS-17			R1506531-018 MB-SS-18		
High Occupancy Use Guidance Criteria				Sample Depth/Date:			8/7/2015			8/7/2015			8/7/2015		
PCBs (EPA METHOD 8080)				CAS	RSCO	Comment	Result	Q	DF	Result	Q	DF	Result	Q	DF
Aroclor1016	12674-11-2	- -	UG/KG	70	U	2	350	U	10	350	U	10	390	U	10
Aroclor1221	11104-28-2	- -	UG/KG	140	U	2	710	U	10	710	U	10	790	U	10
Aroclor1232	11141-16-5	- -	UG/KG	70	U	2	350	U	10	350	U	10	390	U	10
Aroclor1242	53469-21-9	- -	UG/KG	70	U	2	350	U	10	350	U	10	390	U	10
Aroclor1248	12672-29-6	- -	UG/KG	70	U	2	350	U	10	350	U	10	390	U	10
Aroclor1254	11097-69-1	- -	UG/KG	230		2	630		10	1900		10	3200		10
Aroclor1260	11096-82-5	- -	UG/KG	62	JP	2	350	U	10	350	U	10	390	U	10
TOTAL DETECTABLE				1336-36-3	1,000 -	UG/KG	292			630			1900		

PCB Sample Results				LAB ID: Sample: R1506531-019 MB-SS-19			R1506531-020 MB-SS-20			R1506531-021 MB-SS-21			R1506531-022 MB-SS-22		
High Occupancy Use Guidance Criteria				Sample Depth/Date:			8/7/2015			8/7/2015			8/7/2015		
PCBs (EPA METHOD 8080)				CAS	RSCO	Comment	Result	Q	DF	Result	Q	DF	Result	Q	DF
Aroclor1016	12674-11-2	- -	UG/KG	380	U	10	37	U	1	35	U	1	36	U	1
Aroclor1221	11104-28-2	- -	UG/KG	780	U	10	74	U	1	71	U	1	73	U	1
Aroclor1232	11141-16-5	- -	UG/KG	380	U	10	37	U	1	35	U	1	36	U	1
Aroclor1242	53469-21-9	- -	UG/KG	380	U	10	37	U	1	35	U	1	36	U	1
Aroclor1248	12672-29-6	- -	UG/KG	380	U	10	37	U	1	35	U	1	36	U	1
Aroclor1254	11097-69-1	- -	UG/KG	2100		10	280		1	35	U	1	30	J	1
Aroclor1260	11096-82-5	- -	UG/KG	380	U	10	37	U	1	35	U	1	36	U	1
TOTAL DETECTABLE				1336-36-3	1,000 -	UG/KG	2100			280			0		

PCB Sample Results				LAB ID: Sample: R1506531-023 MB-SS-23			R1506531-024 MB-SS-24			R1506531-025 MB-SS-25			R1506531-026 MB-SS-26		
High Occupancy Use Guidance Criteria				Sample Depth/Date:			8/7/2015			8/7/2015			8/7/2015		
PCBs (EPA METHOD 8080)				CAS	RSCO	Comment	Result	Q	DF	Result	Q	DF	Result	Q	DF
Aroclor1016	12674-11-2	- -	UG/KG	36	U	1	37	U	1	38	U	1	48	U	1
Aroclor1221	11104-28-2	- -	UG/KG	74	U	1	75	U	1	78	U	1	97	U	1
Aroclor1232	11141-16-5	- -	UG/KG	36	U	1	37	U	1	38	U	1	48	U	1
Aroclor1242	53469-21-9	- -	UG/KG	36	U	1	37	U	1	38	U	1	48	U	1
Aroclor1248	12672-29-6	- -	UG/KG	36	U	1	37	U	1	38	U	1	48	U	1
Aroclor1254	11097-69-1	- -	UG/KG	36	U	1	37	U	1	25	J	1	76		1
Aroclor1260	11096-82-5	- -	UG/KG	36	U	1	37	U	1	38	U	1	67		1
TOTAL DETECTABLE				1336-36-3	1,000 -	UG/KG	0			25			143		

TABLE 1
PCB Sampling Results Summary
City of Ogdensburg - Former Standard Shade Roller Site

PCB Sample Results				LAB ID: Sample: R1506531-028 DUP Y (MB-SS-26)			R1506531-027 MB-SS-27			G4098-01 MB-SS-28			G4098-02 MB-SS-29		
High Occupancy Use Guidance Criteria				Sample Depth/Date:			8/7/2015			10/15/2015			10/15/2015		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
Aroclor1016	12674-11-2	- -	UG/KG	38	U	1	39	U	1	3.9	U	1	3.8	U	1
Aroclor1221	11104-28-2	- -	UG/KG	77	U	1	79	U	1	3.9	U	1	3.8	U	1
Aroclor1232	11141-16-5	- -	UG/KG	38	U	1	39	U	1	3.9	U	1	3.8	U	1
Aroclor1242	53469-21-9	- -	UG/KG	38	U	1	39	U	1	3.9	U	1	3.8	U	1
Aroclor1248	12672-29-6	- -	UG/KG	38	U	1	39	U	1	3.9	U	1	3.8	U	1
Aroclor1254	11097-69-1	- -	UG/KG	38	U	1	39	U	1	91.3		1	350		1
Aroclor1260	11096-82-5	- -	UG/KG	38	U	1	39	U	1	3.9	U	1	3.8	U	1
TOTAL DETECTABLE				1336-36-3	1,000 -	UG/KG	0			91.3			350		

PCB Sample Results				LAB ID: Sample: G4098-03 MB-SS-30			G4098-04 MB-SS-31			G4098-05 MB-SS-32			G4098-08 MB-SS-33		
High Occupancy Use Guidance Criteria				Sample Depth/Date:			10/15/2015			10/15/2015			10/15/2015		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
Aroclor1016	12674-11-2	- -	UG/KG	4.5	U	1	3.8	U	1	3.9	U	1	4.1	U	1
Aroclor1221	11104-28-2	- -	UG/KG	4.5	U	1	3.8	U	1	3.9	U	1	4.1	U	1
Aroclor1232	11141-16-5	- -	UG/KG	4.5	U	1	3.8	U	1	3.9	U	1	4.1	U	1
Aroclor1242	53469-21-9	- -	UG/KG	4.5	U	1	3.8	U	1	3.9	U	1	4.1	U	1
Aroclor1248	12672-29-6	- -	UG/KG	4.5	U	1	3.8	U	1	3.9	U	1	4.1	U	1
Aroclor1254	11097-69-1	- -	UG/KG	1100	D	5	140		1	32.1		1	4.1	U	1
Aroclor1260	11096-82-5	- -	UG/KG	4.5	U	1	3.8	U	1	3.9	U	1	4.1	U	1
TOTAL DETECTABLE				1336-36-3	1,000 -	UG/KG	1100			32.1			0		

PCB Sample Results				LAB ID: Sample: G4098-09 DUP-X (MB-SS-33)			G4098-09RE DUP-XRE (MB-SS-33)			R1302640-016 SED-01 (MH-2)			R1302640-017 SED-02		
High Occupancy Use Guidance Criteria				Sample Depth/Date:			10/15/2015			4/16/2013			4/17/2013		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
Aroclor1016	12674-11-2	- -	UG/KG	4	U	1	4	U	1	2600	U	50	24000	U	500
Aroclor1221	11104-28-2	- -	UG/KG	4	U	1	4	U	1	5300	U	50	49000	U	500
Aroclor1232	11141-16-5	- -	UG/KG	4	U	1	4	U	1	2600	U	50	24000	U	500
Aroclor1242	53469-21-9	- -	UG/KG	4	U	1	4	U	1	2600	U	50	24000	U	500
Aroclor1248	12672-29-6	- -	UG/KG	4	U	1	4	U	1	2600	U	50	24000	U	500
Aroclor1254	11097-69-1	- -	UG/KG	4	U	1	4	U	1	18000		50	71000		500
Aroclor1260	11096-82-5	- -	UG/KG	4	U	1	4	U	1	2600	U	50	24000	U	500
TOTAL DETECTABLE				1336-36-3	1,000 -	UG/KG	0			18000			71000		

TABLE 1
PCB Sampling Results Summary
City of Ogdensburg - Former Standard Shade Roller Site

PCB Sample Results				LAB ID: Sample: R1302640-018 SED-03 (MH-1)			R1404656-013 Maintenance Bldg Pipe			R1503480-005 MB-SED-1			R1503480-006 MB-SED-2		
High Occupancy Use Guidance Criteria				Sample Depth/Date: 4/16/2013			6/17/2014			5/7/2015			5/7/2015		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
CAS	RSC0	Comment	UG/KG												
Aroclor1016	12674-11-2	- -	UG/KG	2100	U	50	5100	U	100	22000	U	500	20000	U	500
Aroclor1221	11104-28-2	- -	UG/KG	4300	U	50	10000	U	100	45000	U	500	40000	U	500
Aroclor1232	11141-16-5	- -	UG/KG	2100	U	50	5100	U	100	22000	U	500	20000	U	500
Aroclor1242	53469-21-9	- -	UG/KG	2100	U	50	5100	U	100	22000	U	500	20000	U	500
Aroclor1248	12672-29-6	- -	UG/KG	2100	U	50	5100	U	100	22000	U	500	20000	U	500
Aroclor1254	11097-69-1	- -	UG/KG	18000		50	42000		100	120000		500	49000		500
Aroclor1260	11096-82-5	- -	UG/KG	5700		50	5100	U	100	22000	U	500	20000	U	500
TOTAL DETECTABLE 1336-36-3 1,000 - UG/KG				23700			42000			120000			49000		

PCB Sample Results				LAB ID: Sample: R1503480-007 MB-SED-3			R1503480-008 MB-SED-4			R1503480-001 MBCS-1			R1503480-002 MBCS-2		
High Occupancy Use Guidance Criteria				Sample Depth/Date: 5/7/2015			5/7/2015			5/7/2015			5/7/2015		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
CAS	RSC0	Comment	UG/KG												
Aroclor1016	12674-11-2	- -	UG/KG	20000	U	500	20000	U	500	18000	U	1000	18000	U	1000
Aroclor1221	11104-28-2	- -	UG/KG	41000	U	500	42000	U	500	69000	U	1000	69000	U	1000
Aroclor1232	11141-16-5	- -	UG/KG	20000	U	500	20000	U	500	34000	U	1000	34000	U	1000
Aroclor1242	53469-21-9	- -	UG/KG	20000	U	500	20000	U	500	34000	U	1000	34000	U	1000
Aroclor1248	12672-29-6	- -	UG/KG	20000	U	500	20000	U	500	34000	U	1000	34000	U	1000
Aroclor1254	11097-69-1	- -	UG/KG	81000		500	110000		500	280000		1000	160000		1000
Aroclor1260	11096-82-5	- -	UG/KG	20000	U	500	20000	U	500	34000	U	1000	34000	U	1000
TOTAL DETECTABLE 1336-36-3 1,000 - UG/KG				81000			110000			280000			160000		

PCB Sample Results				LAB ID: Sample: R1503480-003 MBCS-3			R1503480-004 MBCS-4			R1400207-013 CS-13			R1300274-014 B-139		
High Occupancy Use Guidance Criteria				Sample Depth/Date: 5/7/2015			5/7/2015			1/19/2014			0.5-2.0 ft 1/7/2013		
PCBs (EPA METHOD 8080)				Result	Q	DF	Result	Q	DF	Result	Q	DF	Result	Q	DF
CAS	RSC0	Comment	UG/KG												
Aroclor1016	12674-11-2	- -	UG/KG	18000	U	1000	18000	U	1000	6900	U	100	38	U	
Aroclor1221	11104-28-2	- -	UG/KG	35000	U	1000	35000	U	1000	14000	U	100	76	U	
Aroclor1232	11141-16-5	- -	UG/KG	18000	U	1000	18000	U	1000	6900	U	100	38	U	
Aroclor1242	53469-21-9	- -	UG/KG	18000	U	1000	18000	U	1000	6900	U	100	38	U	
Aroclor1248	12672-29-6	- -	UG/KG	18000	U	1000	18000	U	1000	6900	U	100	38	U	
Aroclor1254	11097-69-1	- -	UG/KG	78000		1000	65000		1000	42000		100	50		
Aroclor1260	11096-82-5	- -	UG/KG	18000	U	1000	18000	U	1000	6900	U	100	38	U	
TOTAL DETECTABLE 1336-36-3 1,000 - UG/KG				78000			65000			42000			50		

PCB Sample Results				LAB ID: Sample: R1300274-012 B-140		
High Occupancy Use Guidance Criteria				Sample Depth/Date: 0.0-2.0 ft 1/8/2013		
PCBs (EPA METHOD 8080)				Result	Q	DF
CAS	RSC0	Comment	UG/KG			
Aroclor1016	12674-11-2	- -	UG/KG	37	U	
Aroclor1221	11104-28-2	- -	UG/KG	75	U	
Aroclor1232	11141-16-5	- -	UG/KG	37	U	
Aroclor1242	53469-21-9	- -	UG/KG	37	U	
Aroclor1248	12672-29-6	- -	UG/KG	37	U	
Aroclor1254	11097-69-1	- -	UG/KG	320		
Aroclor1260	11096-82-5	- -	UG/KG	130		
TOTAL DETECTABLE 1336-36-3 1,000 - UG/KG				450		

Table 2

Sediment Sample Results

Sediment Sample Results

Sediment Sample Results

Restricted Soil Cleanup Objectives (SCO) -

Restricted Residential

Barton and Loguidice, D.P.C.

Appendix A

Health & Safety Plan

**Former Standard Shade Roller Site
Brownfield Cleanup Project
NYSDEC Site No. C645049**

**City of Ogdensburg
St. Lawrence County, New York**

Appendix A Health and Safety Plan

April 2015

Former Standard Shade Roller Site
Brownfield Cleanup Project
NYSDEC Site No. C645049

City of Ogdensburg
St. Lawrence County, New York

Appendix A
Health and Safety Plan

April 2015

Prepared for:

City of Ogdensburg
Department of Planning and Development
330 Ford Street
City Hall Room 11
Ogdensburg, New York 13669

Prepared by:

Barton & Loguidice, D.P.C.
Engineers, Environmental Scientists, Planners, Landscape Architects
290 Elwood Davis Road
P. O. Box 3107
Syracuse, New York 13220



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Attachments

Attachment 1 – Hospital Route

1.0 General Information

1.1 Introduction

This Health and Safety Plan (HASP) addresses those activities associated with the performance of Brownfield Cleanup Program (BCP) Remedial Investigation and Self-Implementing Cleanup Plan at the former Standard Shade Roller site in the City of Ogdensburg, New York. This plan was prepared in accordance with 29 CFR 1910.120, *Hazardous Waste Operations and Emergency Response*.

The purpose of this Health and Safety Plan for the City of Ogdensburg BCP Remedial Investigation Project is to provide specific guidelines and establish procedures for the protection of personnel during the performance of site investigation activities. The Plan is based on the site information available at this time and anticipated conditions to be encountered during the different phases of work. This Plan is subject to modification as data are collected and evaluated.

All personnel conducting activities on-site must comply with all applicable Federal and State rules and regulations regarding safe work practices. Personnel conducting field activities must also be familiar with the procedures, requirements, and provisions of this Plan. In the event of conflicting Plans and requirements, personnel must implement those safety practices that afford the highest level of protection.

This HASP is not intended to be used by any subcontractors, but it may be used as the basis for contractors to prepare their own plans. This HASP may not address the specific health and safety needs or requirements of subcontractors and should be viewed as the minimum requirement.

2.0 Project Information

2.1 Site Description

The Former Standard Shade Roller site, which consists of 7.76 acres, is located 541 Covington Street in the City of Ogdensburg, St. Lawrence County, New York. The subject property is currently owned by the City of Ogdensburg, as recorded in the St. Lawrence County Clerk's Office as Instrument I.D. No. 2007-14552; Tax Parcel Map I.D. No. 48.077-1-2.

Section 1.2 of the NYSDEC-approved Remedial Investigation Work Plan dated October 2012 provides the site description and site history.

2.2 Comprehensive Work Plan

The Comprehensive Work Plan for the site is outlined in the Remedial Investigation Work Plan prepared by Barton & Loguidice, D.P.C. (B&L).

2.3 Scope of Work

The proposed scope of work for this project is to complete an Interim Remedial Measure (IRM) in accordance with New York State Department of Environmental Conservation (NYSDEC) guidelines, and the performance of self-implementing cleanup activities as per U.S. Environmental Protection Agency (EPA) requirements, for the remediation of polychlorinated biphenyl (PCB) impacted materials that are known to exist inside the former Maintenance Garage floor drains and in-line dry wells at the Standard Shade Roller Site located at 541 Covington Street in the City of Ogdensburg, New York. The objective of this project is to:

- Remove and containerize PCB impacted sediment and sludge known to exist in the floor drain of the former Maintenance building;

- Remove and dispose of discharge piping that is believed to extend from the floor drain in the former Maintenance Garage building to two known dry wells located on the north and east sides of the former building;
- Excavate, remove, and dispose of the two aforementioned dry wells;
- Collect clearance/confirmation samples of concrete, sediment, sludge, and subsurface soil for verification of PCB levels;
- Dispose of PCB contaminated material in accordance with State and Federal regulations;
- Excavate and decommission two drain pipes originating from the former factory and discharging to the St. Lawrence River.

2.4 Organization Structure

Barton & Loguidice, D.P.C.:

Program Manager – Scott D. Nostrand, P.E.

Project Manager – Stephen B. Le Fevre, P.G.

Field Personnel – Bryce Dingman, Leandra Keefe

City of Ogdensburg:

Project Contact: – Andrea Smith, Director of the Department of Planning & Development

The Project Manager is responsible for the day-to-day activities of the project, and for coordinating between office and field personnel. The Project Manager will oversee the Site Investigation activities. The Project Manager will also serve as the Site Safety and Health Coordinator (SSHC). The SSHC will establish operating standards and coordinate overall project safety and health activities for the site. The SSHC will review project plans and revisions to

determine that safety and health procedures are maintained throughout the project. Specifically, the responsibilities of the SSHC include:

- a. Aiding the selection of protective clothing and equipment.
- b. Periodically inspecting protective clothing and equipment.
- c. Maintaining proper storage of protective clothing and equipment.
- d. Monitoring the workers for signs of heat stress, cold stress, and fatigue.
- e. Monitoring on-site hazards and conditions.
- f. Conducting periodic surveillance to evaluate effectiveness of Site-specific Health and Safety Plan.
- g. Having knowledge of emergency procedures, evacuation routes, and the telephone numbers of the ambulance, local hospital, poison control center, fire department, and police department.
- h. Posting the directions to the hospital and the telephone numbers of the ambulance, local hospital, poison control center, fire department, and police department.
- i. Notifying, when necessary, local public emergency officials.
- j. Coordinating emergency medical care.

Field personnel will assist with responsibilities of the SSHC when the Project Manager is not on-site. The Project Manager will be responsible for ensuring that the field personnel are familiar with the contents of this plan and the roles of the SSHC.

3.0 Health and Safety Risk Analysis

Table B-1 breaks down the hazard types that may be encountered for the site activities.

Table B-1 Site Investigation Activity Hazard Evaluation						
Activity	Hazard Type					
	Mechanical	Electrical	Chemical	Physical	Biological	Temperature
Initial Site Inspection	Accidental injury from sampling equipment	Exposed cords and broken lights	Accidental inhalation, ingestion, skin absorption or eye contact with contaminants	Cuts from broken glass, slips, trips, and fall hazards.	Bees and wasps. Poisonous plants	Heat Stress Frost Bite
Excavation	Accidental injury from equipment	Buried power lines	Accidental inhalation, ingestions, skin absorption or eye contact with contaminants	Strain from carrying heavy objects, slips, trips and fall hazards. Excessive noise.	Bees and wasps. Poisonous plants	Heat Stress Frost Bite
Surface Soil/ Sediment Sampling	None Anticipated	None Anticipated	Accidental inhalation ingestion, skin absorption or eye contact with contaminants	Trip and fall hazards.	Bees and wasps. Poisonous plants	Heat Stress Frost Bite
Soil Vapor Sampling	Accidental injury from soil boring equipment	Buried power lines	Accidental inhalation, ingestions, skin absorption or eye contact with contaminants	Strains from carrying heavy objects, slips, trips and fall hazards. Excessive noise.	Bees and wasps. Poisonous plants	Heat Stress Frost Bite
Well Sampling	None Anticipated	Generators and power cords	Accidental inhalation, ingestion, skin absorption or eye contact with contaminants	Strains from lifting. Fall hazards.	Bees and wasps. Poisonous plants	Heat Stress Frost Bite

3.1 Chemical Hazards

The contaminants that have been detected at the site are listed in Table B-2 (on the following page).

3.2 Physical Hazards

Physical hazards associated with the site are:

1. *Slip, Trip, and Fall During All Activities (Uneven Terrain)* – Hazardous waste sites contain numerous potential safety hazards such as: holes, ditches, drums, boards, nails, broken glass, slippery surfaces, steep grades, and uneven terrains. The work itself may be a potential safety hazard. Site personnel should constantly look out for potential safety hazards and should immediately inform the SSHC of any new hazards.
2. *Moving Parts of Heavy Equipment* – Heavy equipment poses dangers though moving parts. Where feasible, access to moving parts will be guarded and equipment will be equipped with backup alarms.
3. *Noise from Heavy Equipment* – Work around large equipment often creates excess noise. Engineering controls and personal protective equipment will be used to protect employees' hearing.
4. *Electrical Hazards* – As in all site work, overhead power lines, electrical wires and cables, site electrical equipment, and lightning also pose a potential hazard to site workers. Site personnel should constantly look out for potential safety hazards and should immediately inform the SSHC of any new hazards.
5. *Biological Hazards (insects, poison ivy, etc.)* – Other biological hazards that may be present at hazardous waste sites include poisonous plants, insects, and animals. PPE can reduce the potential for exposure. The SSHC can assist in determining the correct PPE for the hazard present.

Table B-2
Assessment of Chemicals of Potential Concern

Chemical Name	PEL/TLV	Other Pertinent Limits (Specify)	Warning Properties – Odor Threshold	Potential Exposure Pathways	Acute Health Effects	Chronic Health Effects
Decontamination Materials:						
Isopropyl Alcohol (for decontamination, if necessary)	400 ppm/400 ppm	STEL = 500 ppm IDLH = 2000 ppm	Colorless liquid with the odor of rubbing alcohol	Inhalation. Absorption, Ingestion, Contact	Eye, skin & respiratory irritation; headache, drowsiness, dizziness, dry cracking skin	Dermatitis
Methanol (for decontamination, if necessary)	200 ppm/200 ppm	IDLH = 6000	Colorless liquid with a pungent odor – 141 ppm	Inhalation. Absorption, Ingestion, Contact	Irritation of eyes, skin, respiratory system, headache, drowsiness, dizziness, vertigo, light-headedness, nausea, vomiting, visual disturbances	Optic nerve damage, dermatitis, damage to respiratory system and GI tract
VOCs:						
Benzene	1 ppm/ 0.5 ppm	STEL=5 ppm IDLH=500 ppm	Colorless to light yellow liquid with an aromatic odor – 8.65 ppm	Inhalation. Absorption, Ingestion, Contact	Eye, skin, nose & respiratory irritation; nausea, headache, staggered gait, fatigue, anorexia, weakness, exhaustion	Carcinogen, dermatitis, bone marrow depression, damage to the eyes, respiratory system. CNS
Ethylbenzene	100 ppm/100 ppm	STEL = 125 ppm IDLH = 800 ppm	Colorless liquid with an aromatic odor	Inhalation. Absorption, Ingestion, Contact	Eye, skin & respiratory irritation; CNS effects; headache	Dermatitis; CNS effects;
Toluene	200 ppm/ 50 ppm	C=300 ppm STEL=150 ppm IDLH=500 ppm	Colorless liquid with a sweet, pungent, benzene-like odor	Inhalation. Absorption, Ingestion, Contact	Eye, skin & respiratory irritation; confusion, dizziness, headache	CNS effects; liver, kidney damage; dermatitis
Total Xylenes	100 ppm/100 ppm	STEL = 150 ppm IDLH = 900 ppm	Colorless liquid with an aromatic odor	Inhalation. Absorption, Ingestion, Contact	Eye, skin & respiratory irritation; dizziness, drowsiness, nausea, vomiting, headache, abdominal pain	Dermatitis; CNS effects; liver/kidney damage; blood

Table B-2
Assessment of Chemicals of Potential Concern

Chemical Name	PEL/TLV	Other Pertinent Limits (Specify)	Warning Properties – Odor Threshold	Potential Exposure Pathways	Acute Health Effects	Chronic Health Effects
SVOCs						
4-Methyl phenol (p-cresol)	5 ppm/5 ppm	IDLH=250 ppm	Crystalline solid with a sweet, tarry odor (Note: liquid above 95 degree F)	Inhalation Absorption Ingestion Contact	Eye, skin, mucous membrane irritation.; CNS effects: confusion, depression, respiratory failure; dyspnea, irregular rapid respiration, weak pulse; eye and skin burns; dermatitis.	Lung, liver, kidney, pancreas damage,
Naphthalene (and 2-methyl naphthalene)	10 ppm/10 ppm	IDLH=250 ppm	Colorless to brown solid with an odor of mothballs.	Inhalation Absorption Ingestion Contact	Eye irritation; headache, confusion, excitement, malaise; nausea, vomiting, abdominal pain; irritated bladder; profuse sweating; jaundice, hematuria, hemoglobinuria, renal shutdown; dermatitis; optical neuritis, corneal damage.	Target organs: eyes, skin, blood, liver, kidneys, CNS.
PCBs	PEL=1 mg/m3 (42%) PEL=0.5 mg/m3 (54%) TLV=0.5 mg/m3	IDLH=5 mg/m3	Mild hydrocarbon odor	Inhalation Absorption Ingestion Contact	Eye irritation, acne, jaundice, dark urine	Carcinogen; liver damage; reproductive effects.
Polyaromatic Hydrocarbons (PAHs): 1.2 Benzo(a)anthracene 1.3 Benzo(b)Fluoranthene 1.4 Benzo(k)Fluoranthene 1.5 Benzo(a)pyrene 1.6 Chrysene 1.7 Dibenzo(ah)anthracene 1.8 Fluranthene 1.9 Indeno(1,2,3-cd)pyrene 1.10 Phenanthrene 1.11 Pyrene	PAHs TLV = 0.2 mg/m ³	PAHs IDLH = 80 mg/m ³	NA	Inhalation Absorption Ingestion Contact	Skin, respiratory irritants	Bladder and kidney are target organs

Table B-2
Assessment of Chemicals of Potential Concern

Chemical Name	PEL/TLV	Other Pertinent Limits (Specify)	Warning Properties – Odor Threshold	Potential Exposure Pathways	Acute Health Effects	Chronic Health Effects
Metals:						
Arsenic	0.002 mg/m ³	IDLH= 5 mg/m ³	Silver-gray or tin-white, brittle, odorless solid	Inhalation. Absorption, Ingestion, Contact	Ulceration of nasal septum, dermatitis, gastrointestinal disturbances, peripheral neuropathy, respiratory irritation, hyper-pigmentation of skin, potential occupational carcinogen	Liver, kidneys, skin, lungs, and lymphatic system are target organs. Lung and lymphatic cancer
Lead	0.05 mg/m ³ / 0.05 mg/m ³	IDLH=100 mg/m ³	A heavy, gray ductile, soft solid	Inhalation. Absorption, Ingestion, Contact	Weakness, lassitude, insomnia, facial pallor	Encephalopathy, kidney disease, hypotension
Mercury	0.05 mg/m ³ / 0.1 mg/m ³	IDLH= 10 mg/m ³	Silver-white, heavy, odorless liquid	Inhalation. Absorption, Ingestion, Contact	Eyes, skin irritants, cough, chest pain, breathing difficulty, bronchitis, pneumonitis, tremor, insomnia, irritability, indecision, headache, fatigue, weakness, gastrointestinal disturbance, anorexia, weight loss	Eyes, skin, respiratory system, central nervous system, and kidneys are target organs.
Silver	0.01 mg/m ³	IDLH= 10 mg/m ³	Metal: white, lustrous solid	Inhalation. Ingestion, Contact	Blue-gray eyes, nasal septum, throat, skin, irritation, skin ulceration, gastrointestinal disturbance	Nasal septum, skin, and eyes are target organs
Cadmium	0.005 mg/m ³ /0.002 mg/m ³	IDLH= 50 mg/m ³	Bluish-white to gray, metallic	Inhalation, Ingestion	Lung burden	Kidney failure
Copper	0.1 mg/m ³ /0.2 mg/m ³	N/A	Metallic to greenish-blue	inhalation	Respiratory tract irritation	No ill effects noted.
Nickel	1 mg/m ³	IDLH=2000 mg/m ³	Metallic, silver, white	inhalation	Pulmonary, olfactory, bronchiole irradiation.	Pulmonary inflammation, degeneration of bronchiolar mucosa, atrophy of the olfactory epithelium.
PEL = OSHA Permissible Exposure Limit; represents the maximum allowable 8-hour time-weighted average (TWA) exposure concentration. TLV = ACGIH Threshold Limit Value; represents the maximum recommended 8-hour TWA exposure concentration. STEL = OSHA Short-term Exposure Limit; represents the maximum allowable 15-minute TWA exposure concentration. C = OSHA Ceiling Limit; represents the maximum exposure concentration above which an employee shall not be exposed during any period without respiratory protection. IDLH = Immediately Dangerous to Life and Health; represents the exposure likely to cause death or immediate delayed permanent adverse health effects or prevent escape from such an environment						

3.3 Heat and Cold Stress

Workers will be routinely observed by the SSHC for symptoms of heat stress or cold exposure, as dictated by the weather conditions and work being conducted. Heat stress and cold exposure can be avoided by periodic, regular rest breaks.

Heat stress may be a potential hazard for personnel wearing PPE, particularly working in hot and humid conditions. Workers should take regular rest breaks within a shaded area, removing their PPE, and drink electrolyte replacing liquids and/or water. The SSHC is responsible for scheduling the amount of time each individual can work under the existing site conditions, and how often and how long they will break. Workers will be required to take their breaks in the clean zone after going through the decontamination area, or they may undergo partial decontamination and rest in a clean area within the decontamination area.

Personnel working in cold conditions will be required to wear warm, dry clothing. Workers must be aware of their extremities during cold conditions, particularly their face and ears, fingers, and toes, in order to avoid frostbite. At any point, should a worker feel numbness or tingling sensation in their extremities, they should return to the clean zone and to a warm area.

3.4 Confined Space Entry

It is not anticipated that B&L employees will enter confined spaces. If B&L employees do enter confined spaces, then the employees will conduct all permit required confined space entry in compliance with a permit space program meeting the requirements of the Occupational Safety and Health Administration (OSHA) regulation 1910.146.

The Contractor may be required to enter confined spaces for tank cleaning purposes. Coordination with the Project Manager shall be made prior to any entry

of a permit required confined space. The Contractor must conduct all permit required confined space entry in compliance with a permit space program meeting the requirements of the Occupational Safety and Health Administration (OSHA) regulation 1910.146.

Excavations do pose a potential confined space entry area. When an excavation becomes a confined space entry area (greater than 4 feet deep), then permit-required confined space entry procedures will be followed should the excavation need to be entered. In addition, air monitoring for oxygen deficiency, LEL, and organic vapors will be performed should the excavation be greater than 4 feet deep. Attempts will be made to collect samples from the excavation without entering the excavation (i.e., from excavator bucket, sampling rods, etc.).

4.0 Medical Surveillance Program

4.1 General

OSHA in 29 CFR 1910.120, the Hazardous Waste Operations regulations and in 1910.134, the Respiratory Protection regulations, requires medical examinations. The examination may include the OSHA required Medical Questionnaire, Respirator Suitability Form, a Medical Examination, Audiology Test, Pulmonary Function Test, and testing for complete blood count and chemistry profile.

These medical examinations and procedures are performed by or under the supervision of a licensed physician. The medical monitoring is provided to workers free of cost, without loss of pay and at a reasonable time and place. In addition, the need to implement a more comprehensive medical surveillance program will be re-evaluated after any apparent over-exposure incident.

Employees who wear, or may wear, respiratory protection will be provided respirators as regulated by 29 CFR 1910.134 before performing designated duties. Prior to issuance of a respirator, a medical professional must have medically certified the individual's ability to wear respiratory protection. Where the medical requirements of 29 CFR 1910.120 overlap those of 29 CFR 1910.134, the more stringent of the two will be enforced. It is not anticipated the respirator use will be required at the site.

Although the Site is not classified as a hazardous waste site, employees who work during field activities may be subject to the medical surveillance program.

4.2 Frequency

1. *Baseline Examinations* – Individuals who are assigned temporarily or permanently to fieldwork at hazardous waste sites or the use of a respirator will receive a baseline examination prior to job assignment.
2. *Periodic Examinations* – Individuals who are assigned temporarily or permanently to fieldwork at hazardous waste sites or the use of a respirator will receive periodic examinations as required.
3. *Termination Examinations* – Field employees permanently leaving the company whom were in the medical surveillance program will receive an exit examination.
4. *Possible Exposure Examinations* – As soon as possible upon notification by an employee that the employee has developed signs or symptoms indicating possible overexposure to hazardous substances or health hazards, or that employee has been injured or exposed above the permissible exposure limits in an emergency situation, that employee will be required to receive medical attention.

4.3 Examination Results

A letter must be received from the attending physician stating the parameters of the examination and whether or not the individual is able to work with or without restriction. This letter will be filed in the employee's file and a copy distributed to the employee. The examining physician makes a report to B&L of any medical condition that would place B&L employees at increased risk when wearing a respirator or other personal protective equipment. B&L maintains the medical records of personnel, as regulated by 29 CFR 1910.120 and 29 CFR 1910.1020, where applicable.

5.0 Training Program

5.1 Hazardous Waste Operations Health and Safety Training

Employees who are assigned to perform duties on hazardous waste sites will receive the OSHA initial 40-hour health and safety training prior to on-site activities, in accordance with 29 CFR 1910.120 (e). In addition, such personnel provide documentation of having received three days of supervised field experience applicable to this site, or receive three days of supervised field experience at this site. Applicable employees will receive yearly 8-hour refresher courses. On-site managers and supervisors who are directly responsible for or who supervise workers engaged in hazardous waste operations receive, in addition to the appropriate level of worker HAZWOPER training described above, eight additional hours of specialized supervisory training, in compliance with 29 CFR 1910.120(e)(4).

Although the Site is not classified as a hazardous waste site, employees who work during field activities may be required to attend HAZWOPER initial and refresher training.

5.2 Additional Training

As site activities change, supplemental training will be provided to employees to address changes in identified hazards, risks, operations procedures, emergency response, site control, and personal protective equipment. Specialty training will be provided as determined by task and responsibility.

Site specific training will be provided to each employee and will be reviewed at safety briefings. Specialized training will be provided as dictated by the nature of site activities. Specialized training will be provided for activities such as the handling of unidentified substances. Employees involved in these types of activities will be given off-site instruction regarding the potential hazards involved

with such activities and the appropriate health and safety procedures to be followed. Off-site instruction is meant to include any areas where employees will not be exposed to site hazards.

5.3 Other Required Training

Other training that may be required by workers that is in addition to required training described above is detailed below:

- Hazard communication, in accordance with 29 CFR 1910.1200
- Respirator use, in accordance with 29 CFR 1910.134
- Hearing conservation, in accordance with 29 CFR 1910.95
- Working safely around heavy equipment
- Heat and cold stress prevention
- Confined space entry, in accordance with 289 CFR 1910.146

5.4 Pre-Entry Briefing

A site-specific briefing is provided to all individuals, including site visitors, who enter this site beyond the site entry point. For visitors, the site-specific briefing provides information about site hazards, the site lay-out including work zones and places of refuge, the emergency alarm system and emergency evacuation procedures, and other pertinent safety and health requirements as appropriate.

The SSHC will brief personnel as to the potential hazards likely to be encountered. Topics will include:

- Availability of this HASP.
- General site hazards and specific hazards in the work areas including those attributable to the chemicals present.

- Selection, use, testing and care of the body, eye, hand and foot protection being worn, with the limitations of each.
- Decontamination procedures for personnel, their personal protective equipment and other equipment used on the site.
- Emergency response procedures and requirements.
- Emergency alarm systems and other forms of notification, and evacuation routes to be followed.
- Methods to obtain emergency assistance and medical attention.

5.5 Training Records

This site maintains written certification of the successful completion of applicable training requirements for each worker. Training records are maintained up-to-date and are retained onsite. Written certificates have been given to each person so certified. Additionally, an employee sign off sheet indicating that each worker has reviewed a copy of this HASP and understands its contents is stored at the same location.

6.0 Health and Safety Field Implementation

6.1 Personal Protective Equipment Requirements

Level D protection will be worn for initial entry on-site. Modified Level D protection will be used for sampling and decontamination activities. All personnel will upgrade the level of personal protection to Level C based upon sustained (five (5) minutes or more) air monitoring action levels. The requirements for personal protective equipment are outlined in Table B-3.

Table B-3 Personal Protective Equipment (PPE) Requirements								
Job Tasks	Level of Protection	PPE						
		Suit	Gloves	Feet	Head	Eye	Ear	Respirator
All on-site	D	Std.	Work	Steel	HH	Glasses/Goggles	Plugs/Muffs	N/A
Sampling	Modified D	Std.	Neoprene or Nitrile	Steel + Booties	HH	Glasses/Goggles	Plugs/Muffs	N/A
Decon	Modified D	Std.	Butyl or Viton	Steel + Booties	HH	Goggles	Plugs/Muffs	N/A
All on-site (Upgrade)	C	PE Tyvek	Neoprene or Nitrile	Steel + Booties	HH	N/A	Plugs/Muffs	Full APR w/OV& N100
Personal Protective Equipment SUIT: Std = Standard Work Clothes PE Tyvek = Polyethylene-coated Tyvek FEET: Steel = Steel-toe Boots Booties = PVC or Latex Booties HEAD: HH = Hard Hat EYE: Glasses = Safety Glasses w/side shields Goggles = Safety Goggles				Personal Protective Equipment EAR: Plugs = Ear Plugs Muffs = Ear Muffs RESPIRATOR: APR = Air-purifying respirator Full APR = Full-face APR OV = Organic vapor cartridge N100 = N100 particulate filters				

6.2 Air Monitoring Procedures

The Project Manager or designee will conduct air monitoring in accordance with the New York State Department of Health (NYSDOH) Community Air Monitoring Plan. Direct reading instruments will be calibrated in accordance with manufacturer's requirements and the results of the calibration will be documented.

This Community Air Monitoring Plan (CAMP) sets forth the procedures for performing real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area with respect to specific activities to be completed as part of the remedial investigation. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses, and on-site or nearby workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

Continuous monitoring will be required for all subsurface intrusive activities performed during the remedial investigation and during the demolition of contaminated or potentially contaminated structures. Subsurface intrusive activities include, but are not limited to, soil excavation and handling, and test pitting or trenching.

Periodic monitoring for VOCs will also be required during non-intrusive activities such as the collection of surface soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during surface soil, sediment, and groundwater sample collection activities will consist of taking a reading upon arrival at a sample location,

monitoring while opening a well cap or overturning soil, monitoring during well bailing/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities.

VOCs will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shut down.

All 15-minute readings will be recorded and available for EPA personnel to review. Instantaneous readings used for decision making purposes, if any, will also be recorded.

Particulate concentrations will also be monitored continuously at the upwind and downwind perimeters of the exclusion zone or work area. The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment will be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration will be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work may continue with dust suppression techniques if downwind PM-10 particulate levels do not exceed $150 \text{ mcg}/\text{m}^3$ above the upwind level and if no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than $150 \text{ mcg}/\text{m}^3$ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume if dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within $150 \text{ mcg}/\text{m}^3$ of the upwind level and in preventing visible dust migration.

All readings will be recorded and available for NYSDEC and NYSDOH personnel to review.

Table B-4 Monitoring Protocols and Contaminant Action Levels				
Contaminant/ Atmospheric Condition	Monitoring Equipment	Monitoring Protocol	Breathing Zone* Action Level Concentrations	
			Monitored Level For Mandatory Respirator Use**	Monitored Level For Mandatory Work Stoppages***
VOCs	Photoionization detector (PID) with an 11.7 eV lamp	Initially readings will be recorded every 15 minutes. If no sustained readings are obtained in the breathing zone, readings will be recorded every 30 minutes.	5 ppm above background	25 ppm above background
Particulates	MiniRam or Dustrak or Equivalent	Three times daily when work is being conducted that can generate dust, e.g. excavation, monitoring well installation, test pits		150 ug/m ³ at fence line (institute engineering controls to control dust) per NYSDEC TAGM 4031
<p>*Monitoring performed in the breathing zone for sustained readings of 5 minutes or more. Monitor source first; if the source is near or above the action level concentration, monitor in the breathing zone.</p> <p>**Monitored levels will require the use of approved respiratory protection specified in Table B-3.</p> <p>***Consult the Project Manager.</p>				

6.3 Decontamination Procedures

Depending on the specific job task, decontamination may include personnel themselves, tools, and/or heavy equipment. The specified levels of protection for a task (A, B, C, or D) does not itself define the extent of personal protection or equipment decontamination. For instance, Level C without dermal hazards will require less decontamination than Level C with dermal hazards. Heavy equipment will always require decontamination to prevent cross-contamination. The following sections summarize general decontamination protocols.

6.3.1 *Heavy Equipment*

Heavy equipment will be decontaminated prior to personnel decontamination. Heavy equipment will have their drilling rods, augers and/or buckets steam cleaned after use, preferably at locations near the individual drilling/excavation operations. Containment systems will be set-

up for collection of decontamination fluids and materials. Berms and wind barriers will be set up, if appropriate.

Vehicles that become contaminated with suspect soil will be cleaned prior to leaving the site. The wheel wells, tires, sides of vehicles, etc. will be high-pressure washed at a location to be determined by the SSHC.

6.3.2 Personnel

In general, decontamination involves scrubbing with a non-phosphate soap/water solution followed by clean water rinses. Disposable items will be disposed of in a dry container.

Reusable protection will be washed with soap and clean potable water and air-dried prior to storage. Dirt, oil, grease or other foreign materials that are visible will be removed from surfaces. Scrubbing with a brush may be required to remove materials that adhere to the surfaces. Certain parts of contaminated respirators, such as harness assemblies and leather or cloth components, are difficult to decontaminate. If grossly contaminated, they may be discarded. Rubber components can be soaked in soap and water and scrubbed with a brush.

The following decontamination protocol will be used, as appropriate to the level of PPE being used:

- Drop hand tools and equipment in the designated decontamination area.
- Either wash outer rubber boots or dispose of booties.
- Rinse outer boots.
- Wash and rinse outer gloves.
- Remove outer boots and gloves, dispose gloves if necessary.
- Replace cartridges if required.

- Remove and dispose Tyvek coverall.
- Remove respirator, dispose cartridges as required.
- Personnel should wash their respirator at the end of each workday.

6.3.3 Decontamination Wastes

Decontamination wash and rinse waters will be collected and disposed of according to the applicable regulatory guidelines.

- Spent decontamination solutions may be required to be drummed and disposed of as hazardous waste and/or solvent solutions may be required to be segregated from water rinses.
- Decontamination shall be performed in a manner that minimizes the amount of waste generated.

7.0 Site Operating Procedures

The following is a list of the general guidelines required for the remedial work at the former Standard Shade Roller site in the City of Ogdensburg. These guidelines follow the established guidelines of the Barton & Loguidice, D.P.C. Corporate Health and Safety Program:

All field investigation activities must be coordinated through the Project Manager.

At least two persons must be present who are in constant communication with each other during any activity conducted on-site in which a potential exists for exposure to hazardous materials, accident or injury. At least two persons must also be present during all demolition or excavation activities.

Samples obtained from areas known or suspected to contain contaminated substances or materials must be handled with appropriate personal protection equipment.

All equipment used to conduct the Site Investigation must be properly decontaminated and maintained in good working order. Equipment must be inspected for signs of defects and/or contamination before and after each use.

Eating, drinking, chewing gum, and smoking are prohibited within the Site Activity Zone and the Decontamination Zone.

The discovery of any condition that would suggest the existence of a situation more hazardous than anticipated will result in the evacuation of the activity zone until a complete evaluation of the hazard can be performed.

7.1 Daily Operating Procedures

The following are the daily operating procedures that are to be followed by all on-site personnel:

- Hold Tailgate Safety Meetings prior to work start and as needed thereafter (suggest daily; however, minimum of weekly).
- Use monitoring instruments and follow designated protocol and contaminant action levels.
- Use PPE as specified.
- Use hearing protection if noise levels exceed 85 dBA and around heavy equipment.
- Remain upwind of operations and airborne contaminants, if possible.
- Establish a work/rest regimen when ambient temperatures and protective clothing create potential thermal hazards.
- Eating, drinking, applying cosmetics and smoking is prohibited in work areas.
- Refer to the SSHC for specific safety concerns for each individual site task.
- On-site personnel are encouraged to be alert of their own physical condition, as well as their co-workers.
- **All accidents, no matter how minor**, must be immediately reported to the SSHC.

7.2 Site Control

The purpose of site control is to minimize the exposure of site workers to potential contamination, protect the public from the site's hazards, and prevent vandalism. The degree of site control necessary depends on site characteristics

and the surrounding community. At this time, there are no access restrictions to the site. During the field activities, B&L and the City are requesting that personnel, subcontractors, and visitors report to the on-site B&L supervisor prior to entering the work area.

Since there are no access restrictions to the Site, particular attention will be placed on the condition of the site regarding four main work zone areas:

Activity Zone

This zone applies to the immediate work area and includes all materials, equipment, vehicles and personnel involved in the site activity. For example, during the installation of a monitoring well, the activity zone will encompass the borehole, drilling rig, monitoring well construction materials and equipment, sampling equipment, decontamination supplies, and drilling/well inspection personnel. Site control measures will include flagging the perimeter of the activity zone to clearly mark the limits of work and to warn passers-by and visitors of the site activity. In addition, the Site Supervisor will maintain communication with City personnel as the location of this zone (and the type of work being performed) changes throughout the project.

The required level of PPE in the activity zone can vary according to job assignment. This will allow a flexible, effective, and less costly operation, while still maintaining a high degree of safety.

This area will be limited to authorized personnel from B&L, regulatory agencies, and contractors/subcontractors to the City. Personnel entering this area will be required to comply with their own HASP that must be at least as stringent as this HASP.

Material and Equipment Storage Zone

This zone exhibits the least amount of activity, and as a result, will require the least security. An appropriate area will be designated on-site for the storage of all equipment and supplies to be used throughout the site investigation. The area is to be kept clean and orderly at all times and free from loose equipment, tools, materials or supplies which may compromise the safety of site workers, City personnel or the public. Construction materials and equipment will be covered with plastic at the end of each workday. Any spills or breakages occurring in this area will be immediately attended to before the Site work continues.

Decontamination Zone

In order to prevent incidental contact with contaminants on investigation equipment or in the wash water, all activities within the decontamination area will be completed before subsequent site work or any other activity begins. This includes:

- Complete removal of contaminants on all equipment used during the preceding phase of the investigation;
- Placement of the waste wash water and sediment in sealed drums;
- Storage of the drums in a secure and out-of-the-way place for future disposal;
- Proper labeling of drum contents;
- Cleanup (if necessary) of area outside of decontamination area; and

- Storage of all decontamination equipment, site investigation equipment and materials in the Materials and Equipment Storage Zone.

Support Zone

The support zone is the location of the administrative and other support functions needed to keep the operations in the activity and decontamination zone running smoothly. Any function that need not or cannot be performed in a hazardous atmosphere is performed here. Personnel may wear normal work clothes within this zone. Any potentially contaminated clothing, equipment, and samples must remain in the decontamination zone until decontaminated. All emergency telephone numbers, change for the telephone (if necessary), evacuation route maps, and vehicle keys should be kept in the support zone.

The SSHC will establish decontamination system and decontamination procedures appropriate to the site and the work that will prevent potentially hazardous materials from leaving the site. All personnel exiting the activity zone will be decontaminated prior to entering the support zone. The decontamination procedures will be reviewed at each daily safety briefing.

Personal hygiene facilities meeting at least the minimum requirements of 29 CFR Part 1910.120 will be provided nearby.

Upon completion of the day's activities, heavy machinery and equipment will be stored securely within the site, or at a location selected by the SSHC.

7.3 Buddy System

Most activities in a contaminated or otherwise hazardous area should be conducted with a partner who is able to:

- Provide his or her partner with assistance.
- Observe his or her partner for signs of chemical or heat exposure.
- Periodically check the integrity of his or her partner's protective clothing.
- Notify the SSHC if emergency help is needed.

7.4 Engineering Controls

Engineering controls and work practices are primarily for limiting exposure through application of engineered barriers. They will be applied to this project when and where they are practicable. The following engineering controls may be applied on this project: water spray, covering of materials, site preparation to facilitate operations and remove obvious physical hazards, and warning alarms/devices.

8.0 Emergency Response Procedures

8.1 Pre-Emergency Planning

Planning for emergencies is a crucial part of emergency response. The SSHC is responsible for training all employees in potential site hazards and the emergency response procedures.

8.2 Personnel Roles

The SSHC is responsible for responding to, or coordinating the response of, off-site personnel to emergencies. In the event of an emergency, the SSHC will direct all notification, response and follow-up actions. Contacts with outside response personnel (hospital, fire department, etc.) will be done at the direction of the SSHC.

Prior to the start of work on the site, the SSHC will:

1. Notify emergency contacts, and/or health care facilities of the potentially hazardous activities and potential wastes that may develop as a result of the activities performed on-site;
2. Confirm that the following safety equipment is available: eyewash and safety shower station, first aid supplies, air horn, and fire extinguishers;
3. Have a working knowledge of the safety equipment available; and
4. Confirm a map detailing the most direct route to the hospital is prominently posted with the emergency telephone numbers.

Employees who will respond to emergencies involving hazardous materials will be trained in how to respond to such emergencies.

The SSHC will check daily to see that the following safety equipment is available at the site: eyewash station, first aid supplies, and fire extinguisher.

The SSHC will be responsible for directing notification, response and follow-up actions and for contacting outside response personnel (ambulance, fire department or others) prior to and during an emergency. Upon notification of an exposure incident, the SSHC will call the Hospital and fire and police emergency response personnel for recommended medical diagnosis, treatment, if necessary, and transportation to the hospital.

The SSHC must conduct an investigation of the incident as soon as possible. The SSHC will determine whether and at what levels exposure actually occurred, the cause of such exposure, and the means to prevent similar incidents from occurring. The resulting report must be accurate, objective, complete and signed and dated.

8.3 Safe Distances and Places of Refuge

In case of an emergency, the parking area will serve as the immediate place of refuge. Personnel in the exclusion zone should evacuate through the decontamination zone to the refuge location, both for their own personal safety and to prevent hampering response/rescue efforts. Following an evacuation, the SSHC will account for on-site personnel. If evacuation from the work site is necessary, the project vehicles will be used to transport on-site personnel to a place of refuge.

8.4 Emergency Communications

There will be a cellular telephone located in the Project Manager's vehicle for emergency use. There will be air horns, walkie-talkies, and/or other audible emergency signals located within the exclusion zone and decontamination area to signal others of an emergency. The SSHC should brief all personnel of audible

emergency signals being used during the site activities prior to starting the work.

Site personnel to inform others of emergencies will use the following hand signals:

- Hand gripping throat - out of air, cannot breathe.
- Grip partner's wrist or both hands around waist - leave area immediately.
- Hands on top of head - need assistance.
- Thumbs up - everything's OK, or I understand.
- Thumbs down – No.

8.5 Emergency Procedures

The nature of work at a contaminated or potentially contaminated work site makes emergencies a continual possibility. Although emergencies are unlikely and occur infrequently, a contingency plan is required to assure timely and appropriate response actions. The contingency plan is reviewed at tailgate safety meetings.

8.5.1 *Incident Procedures*

If an emergency incident occurs, the following actions will be taken:

1. Size-up the situation based upon available information.
2. Notify the SSHC.
3. Only respond to an emergency if personnel are sufficiently trained and properly equipped.
4. As appropriate, evacuate site personnel and notify emergency response agencies, e.g., police, fire, etc.
5. As necessary, request assistance from outside sources and/or allocate personnel and equipment resources for the response.

6. Consult the posted emergency telephone list and contact key project personnel.
7. Prepare an incident report.

All site personnel should be aware of the location of firefighting equipment. Personnel shall only extinguish minor fires. Large fires will require contacting the local fire department and allowing them to handle the fire. The local fire department will be contacted prior to initiating site activities to inform them of the potential hazardous materials that could be encountered in an emergency.

8.5.2 Medical Emergencies

In the event of an accident or injury, workers will immediately implement emergency decontamination and isolation measures to assist those who have been injured or exposed and to protect others from the hazards. Upon notification of an exposure incident, the SSHC will contact the emergency response personnel who can provide medical diagnosis and treatment. If necessary, immediate medical care will be provided by trained personnel competent in first aid procedures. Trained personnel competent in such matters will only provide other on-site medical and/or first aid response to an injury or illness.

If an individual is transported to a hospital or doctor, a copy of this HASP will accompany the individual.

The SSHC will be notified when an accident or incident occurs and will respond according to the seriousness of the incident. The SSHC will investigate facility/site conditions to determine whether and at what levels exposure actually occurred, the cause of such exposure and the means to be taken to prevent the incident from recurring.

The SSHC and the exposed individual will complete an exposure-incident investigation. The SSHC will prepare a signed and dated report documenting the investigation. The SSHC and the exposed individual will also complete an exposure-incident reporting form. The form will be filed with the employee's medical and safety records to serve as documentation of the incident and the actions taken.

Emergency first aid may include taking care of minor scrapes to performing CPR. All site personnel should be familiar with the location of the site first aid kits. The site safety officer should be trained in first aid and CPR. Contacting hospital and/or emergency agencies shall be made on a case by case basis depending on the severity of the injury. If an off-site emergency agency is contacted, all the details relating to the injury should be relayed to that agency. All site injuries should be documented. The following actions should be taken if someone requires first aid:

1. Survey the scene to determine if it is safe to reach the injured person.
2. Ask the injured person what happened. If the person is unconscious, look for signs as to what may have occurred.
3. See if there are others injured.
4. Reassure the victim. Contact others for help; tell them to call the appropriate emergency agency.
5. If it is safe to move the victim, return them back to the field office.

Only trained personnel should perform CPR or rescue breathing on an unconscious victim.

Personnel who experience heat stress or frost bite should be attended to in the following manner.

Heat Stress

Symptoms include cool, pale and moist skin, heavy sweating, headache, and nausea. This person should be removed from the hot environment immediately, and allowed to lie on their back. Apply cold packs or make sure they are in an air-conditioned room. Give them plenty of water and/or electrolyte replacing fluids. Should a victim experience heat stroke (high body temperature, red skin) the body must be cooled down quickly and receive medical attention immediately. Persons experiencing heat stress or heat stroke should be attended to until the situation has been remedied.

Frostbite

Symptoms include slightly flushed skin that becomes white, pain at extremities in early stages. Get a victim experiencing frostbite to a warm area and put the frostbitten parts in warm (100-105 F) water. Loosely bandage injured parts after soaking. Under conditions of cold temperatures and high winds, there is the potential for workers experiencing hypothermia. Signs of hypothermia include: shivering, dizziness, numbness, confusion, or drowsiness. Warm up this person's body with dry clothes and a blanket, if available. Call the appropriate emergency agency or take this person to the hospital.

8.6 Emergency Routes

Should an emergency signal be sounded, on-site personnel should immediately stop what they are doing, and return to the decontamination area. Personnel in the decontamination area and the support zone should evaluate the emergency and contact the appropriate off site emergency personnel. Once on site personnel return to the decontamination area, there will be someone there to

direct them as to what to do. It is imperative that the SSHC or designated alternate account for all site personnel. The SSHC should direct all personnel to the nearest safe refuge.

The hospital route is included as attachment 1.

If the emergency event threatens the surrounding community, it is important that the local police and fire departments be contacted immediately regarding the potential danger.

8.7 Spill Control

A major spill is not anticipated at the site. Should a spill of any type occur, the employee should report it immediately to the SSHC, who will make arrangements for the proper clean up of the spill. These arrangements will include diking and ditching, as necessary, as well as the use of absorbents such as vermiculite or speedy dry. The emergency response personnel will be contacted immediately by SSHC in the event that on-site materials can not immediately contain the spill.

8.8 Personal Protective and Emergency Equipment

There will be suitable equipment on site for small emergency events such as additional PPE, fire extinguishers, first aid kits, and eye wash stations. In the event of a major emergency event, off site personnel will be contacted immediately.

8.9 Decontamination Procedures

The extent of emergency decontamination depends on the severity of the injury or illness and the nature of the contamination. Minimum decontamination will consist of detergent washing, rinsing, and removal of contaminated outer

clothing and equipment. If time does not permit the completion of all of these actions, it is acceptable to remove the contaminated clothing without washing it. If the situation is such that the contaminated clothing cannot be removed, the person should be given required first aid treatment, and then wrapped in plastic or a blanket prior to transport to medical care. If heat stress is a factor in the victim's illness/injury, the outer protective garment will be removed immediately.

8.10 Evacuation Routes

Unless otherwise directed, evacuation will be made through the decon area to the parking area for a head count.

8.11 Response Critique

Should an incident on-site occur, the SSHC will analyze the response efforts in order to continually improve on-site conditions and procedures. The SSHC must complete follow-up activities before on-site work is resumed following an emergency. Used emergency equipment must be recharged, refilled or replaced. Government agencies must be notified as required in their regulations.

Attachment 1
Hospital Route

Attachment 1

Hospital Route

From: Former Standard Shade Roller Site, City of Ogdensburg

To: Claxton-Hepburn Medical Center (214 King Street)

- | | | |
|----|---|-----------|
| 1. | Go Northeast on Covington Street towards NY-68E | 500 Feet |
| 2. | Turn Left onto NY-68E | 360 Feet |
| 3. | Turn Right onto Albany Avenue | 0.1 Miles |
| 4. | Turn Left onto King Street, to Claxton-Hepburn Medical Center | 0.1 Miles |

(This should be posted in several conspicuous locations at the site.)

EMERGENCY CONTACTS
(To be posted)

Contact	Person or Agency	Phone Number
City Representative	Andrea Smith, Director of Planning & Development	(315) 393-7150
Law Enforcement	(C) Ogdensburg Police, NYS Troopers	911 (315) 393-1555 {Non-emergency}
Fire Department	(C) Ogdensburg FD	911 (315) 393-2321 {Non-emergency}
Confined Space Rescue (Fire Department)	(C) Ogdensburg FD	911 (315) 393-2321 {Non-emergency}
Ambulance	Ogdensburg Voluntary Rescue Squad	911 (315) 393-0837 {Non-emergency}
Hospital - Emergency	Claxton-Hepburn Medical Center	(315) 393-3887
B&L Project Manager	Stephen Le Fevre, P.G.	(518) 218-1801 (518) 369-9290 (cell)
B&L Site Manager/Site Safety Officer	Bryce Dingman	(518) 300-0770
B&L Officer-in-Charge	Scott D. Nostrand, P.E.	(315) 457-5200

Appendix B

Sampling and Analysis Plan

**Former Standard Shade Roller Site
541 Covington Street
City of Ogdensburg, New York**

Appendix B Sampling and Analysis Plan

**NYSDEC Brownfield Cleanup Project
NYSDEC Site No. C645049
U.S. EPA Cooperative Agreement No. BF-97219900**

April 2015

Former Standard Shade Roller Site
541 Covington Street
City of Ogdensburg, New York

NYSDEC Interim Remedial Measures Work Plan and
U.S. EPA Self- Implementation Cleanup Plan for the
Remediation of Polychlorinated Biphenyl (PCB) Contamination

Appendix B
Sampling and Analysis Plan

NYSDEC Brownfield Cleanup Project
NYSDEC Site No. C645049

U.S. EPA Cooperative Agreement No. BF-97219900

February 2014

Prepared for:

City of Ogdensburg
Department of Planning and Development
330 Ford Street
City Hall Room 11
Ogdensburg, New York 13669

Prepared by:

Barton & Loguidice, P.C.
Engineers, Environmental Scientists, Planners, Landscape Architects
290 Elwood Davis Road
Box 3107
Syracuse, New York 13220



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Appendices

Appendix A – Chip, Wipe, and Sweep Sampling (USEPA Publication No. 2011)

1.0 Introduction

This document presents the Sampling and Analysis Plan (SAP) for the New York State Department of Environmental Conservation (NYSDEC) Interim Remedial Measures Work Plan and U.S. EPA Self-Implementation Cleanup Plan for the remediation of polychlorinated biphenyl (PCB) contamination at the Former Standard Shade Roller Site, City of Ogdensburg, New York.

The SAP defines the procedures to be followed during the PCB remediation activities. The SAP contains five sections including this Introduction (section 1). Section 2 outlines the sampling objectives of the remediation program; section 3 provides a description of the post remediation sampling program, including sample designation, sample handling, and analytical requirements; section 4 details the sampling procedures; and section 5 outlines the field sampling and sample quality assurance/quality control (QA/QC) mechanisms.

2.0 Sampling Objectives

2.1 Chemical Characterization

Based on our knowledge from previous investigations at the site, the chemicals of concern are polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), and metals. Minimal impacts have been observed for volatile organic compounds. Following the performance of PCB remedial activities, confirmatory sampling of the concrete/sediment/sludge/soil that is associated with demolition and excavation activities, (i.e. concrete trench drain, MH-1, MH-2, the former Maintenance building concrete slab, and drain piping) will be conducted to verify that levels of PCBs, PAHs, and metals are below cleanup criteria guidance levels. Secondary confirmation testing of VOCs, PAHs, and metals will also be collected to verify all forms of contaminants have been effectively removed during remedial activities.

2.2 Data Quality Objectives

Data quality objectives (DQOs) are based on the concept that different data uses may require different levels of data quality. Data quality can be defined as the degree of uncertainty in the data with respect to precision, accuracy and completeness. The five levels of data quality are:

- Field Screening – This provides the lowest level of data quality but has the most rapid turnaround on results. It is often used for monitoring of health and safety conditions, preliminary comparison to Applicable or Relevant and Appropriate Requirements (ARARs), initial site characterization and location of areas designated for higher levels of sampling and analyses, and for screening of bench-scale remediation tests. These data are typically generated on-site using real-time measuring devices and include total organic vapor concentrations from PID readings, Draeger tube measurements, pH,

specific conductance, dissolved oxygen, airborne particulates and any other data obtained using direct-reading instruments.

- **Field Analyses** – This level provides rapid results in the field and is generally of better quality than Field Screening data. Analyses include mobile lab-generated data and computer-generated modeling of site data (i.e., geophysical data, hydraulic conductivity data).
- **Laboratory Screening (Non ASP/CLP)** – These methods provide an intermediate level of data quality and are used for site characterization. Engineering analyses may include higher levels of mobile lab-generated data or laboratory-generated data using rapid turnaround methods. These types of methods provide useful site characterization data, but are generally considered for screening purposes since the results are generated without the benefit of full quality control documentation.
- **Laboratory Confirmational (ASP/CLP)** – This provides the highest level of data quality and is appropriate for use in risk assessments, engineering design, and cost evaluations. This level requires the analytical laboratory to be NYSDOH ELAP-certified for ASP/CLP categories and to provide internal quality control documentation derived from such reporting protocols. Some projects requiring the full ASP/CLP laboratory reporting will also be subject to independent third-party data validation or an internal Data Usability Summary Reporting (DUSR) at the discretion of the Project Manager.

All samples collected by B&L will be analyzed by a NYSDOH ELAP laboratory certified for the ASP/CLP categories in order to generate Laboratory Confirmational data. Data will be subject to independent third-party data validation.

3.0 Sampling Program

3.1 Post Remediation Sampling Program

The objective of this task is to collect sufficient samples to document the successful remediation of PCB-contaminated materials in and around the former Maintenance Building structure. The objective and methodologies to be employed in the collection and laboratory analysis of post remediation samples are described in greater detail in the Work Plan and within subsequent sections of this appendix.

3.2 Sample Designation

Samples will be designated using a two-digit number, beginning with 01 and increasing sequentially to identify the sample location.

3.3 Sample Handling

3.3.1 Sample Container Requirements and Holding Times

Specific sample containers are required for each of the media types to be sampled, as well as the proposed analyses to be performed. Samples should be received by the laboratory within 48 hours of sample collection. In addition, there are specific holding time requirements for the type of analyses requested for each sample. These requirements are described below and are summarized on Table 1. Table 2 summarizes the SW-846 Extraction/Preparation Methods.

Concrete/Solids and Soils

EPA Method 8082 [PCBs] analysis requires samples to be collected in an 8 oz. glass container with a Teflon[®]-lined cap. The holding time is limited to 5 days from Validated Time of Sample Receipt (VTSR) for extraction and 40 days for analysis. These samples require storage at <4°C.

EPA Method 8260 [VOCs] analysis requires samples to be collected in a 4 oz. glass container with a Teflon-lined cap. The container must be completely filled with material to create a “zero head space” condition. The holding time is limited to 7 days from VTSR. These samples require storage at <4°C. Laboratory analysis will also include tentatively identified compounds (TICs).

EPA Method 8270 [SVOCs] analysis requires samples to be collected in a 1-liter amber glass container with a Teflon[®]-lined cap. The holding time is limited to 5 days from VTSR for extraction and 40 days for analysis. These samples require storage at <4°C.

EPA Method 6010B [Target Analyte List Metals] analysis requires samples to be collected in a 500-ml. plastic container. The holding time is limited to 6-months from VTSR. These samples require nitric acid (HNO₃) as a preservative and storage at <4°C.

Table 1 - Sample Collection Container Summary Chart				
Matrix	Bottle	Preservative	Analytical Method ¹	Holding Time ²
Concrete/ Solids & Soils	8 oz. Glass w/Teflon®-lined cap	< 4°C	8082	5 days for extraction 40 days for analysis
	4 oz. Glass w/Teflon®- lined cap	< 4°C	8260	7 days
	8 oz. Glass w/Teflon®-lined cap	< 4°C	8270	14 days for extraction 40 days for analysis
	8 oz. Glass w/Teflon®-lined cap	< 4°C	6010B	6 months
¹ – USEPA SW-846 Methods ² – All holding times from Validated Time of Sample Receipt (VTSR) ³ – Non-aqueous samples requiring off-site disposal will be subject to TCLP analysis				

Table 2 - SW-846 Extraction/Preparation Methods	
Parameter	Soil/Sediment
PCBs (8082)	3540/3541/3545/3546/3562 cleanup (3665)
VOCs (8260)	5030/8015/8021
SVOCs (8270)	3540/3541/3550C cleanup (3600C)
Metals (6010B)	3050B/3051A

3.3.2 Sample Packaging and Shipping

Samples will be packaged and shipped in accordance with the procedures outlined in section 5.1 of this appendix. Samples will be delivered to the laboratory within 48 hours of sample collection.

3.3.3 Quality Assurance/Quality Control Samples

The proposed analytical program includes the collection and analysis of quality assurance/quality control (QA/QC) samples. Blind duplicate soil and groundwater samples will be collected at a frequency of one for every twenty samples from each matrix to demonstrate the reproducibility of sampling techniques and laboratory analysis. Field blanks will also be taken during the sampling of surface water, sediments

and soils when dedicated sampling equipment is not used. A field blank will be prepared on-site each day that surface water, sediment, and soil samples are collected with non-dedicated or non-disposable sampling equipment.

Matrix spike/matrix spike duplicate (MS/MSD) samples will be collected at a frequency of one for every twenty samples for each sample matrix during the site investigation. The purpose of these samples is to evaluate the effect of the sample matrix on the analytical results.

4.0 Sampling Procedures

4.1 Preparation for Field Entry

Prior to the initiation of remediation activities, the following tasks will be performed:

- Kick-off meeting with involved personnel to review the scope of work to be performed and the Sampling and Analysis Plan;
- Review of the Health and Safety Plan by all on-site personnel;
- Operational checkout and pre-calibration of the equipment to be taken into the field;
- Location, flagging, and labeling of the proposed sampling locations;
- Review and identify and obtain clearance for underground utilities associated with local utility companies and the site;
- Designate a decontamination area at the site and identify water and power sources; and
- Mobilization of equipment and personnel to the site.

4.2 Decontamination Procedures

4.2.1 *Decontamination of Sampling Equipment*

All reusable sampling equipment (scoops, beakers, trowels, etc.) will be decontaminated prior to field entry and following each use. The decontamination procedures for the collection of soil/sediment/sludge samples are outlined below:

1. Detergent/tap water wash;

2. Tap water rinse;
3. 10% nitric acid (ultra pure) rinse (if sampling for metals);
4. Deionized/distilled water rinse;
5. Acetone or methanol/hexane rinse (pesticide grade or better)
6. Deionized/distilled water rinse
7. Air dry

Following this decontamination procedure, equipment will be wrapped in aluminum foil for future on-site use. Whenever possible, pre-cleaned equipment will be used; however, if the need arises, equipment will be cleaned in the field according to the general procedures described above.

4.3 Concrete Sampling

The sampling procedures outlined in the United States Environmental Protection Agency's (EPA's) Standard Operating Procedures (SOP) publication number 2011 entitled "Chip, Wipe, and Sweep Sampling" (see attached) will be followed.

1. For porous surfaces: ½-inch deep holes will be drilled in the concrete floor in the selected sample location until a sufficient amount of concrete dust material (approximately 30 milligrams per sample) has been generated for sample analysis. The concrete dust will be scooped into the sample jar using a disposable scoop. Sampling will be conducted in accordance with SOP No. 2011.
2. Place the sample into the appropriately labeled, parameter-specific sample container (sample ID number and preservative) and store in coolers with ice or ice packs as soon as possible.
3. Follow record keeping and chain-of-custody procedures as detailed in section 5.1 of this appendix.

4. Thoroughly decontaminate sampling scoop between samples using the procedures outlined in section 4.2.1 of this appendix.
5. At the end of the sampling day, the coolers will be taped shut with the sample custodian's initials placed on the tape at the points of entry. Samples may be delivered to the laboratory by field personnel, or picked up by the analytical laboratory courier. Alternatively, an express carrier may be used to deliver the samples to the laboratory in accordance with applicable State and/or Federal hazardous shipping requirements.

Sample log sheets shall contain the following information:

1. Sample identification.
2. Date and time of sample collection.
3. Sampling depth.
4. Identity of sampling personnel.
5. Chain-of-custody protocols.

5.0 Quality Assurance/Quality Control

5.1 Record Keeping and Chain-of-Custody Documentation

The B&L sampler's field records will contain sufficient information such that someone else can reconstruct the sampling situation without reliance on the sampler's memory. The field sampling data sheet is presented as Figure B-1.

Entries in the field records will include, at a minimum, the following:

- Site name and location
- Project number
- Names and affiliations of Project Manager and sampling personnel involved
- Sampling point name and description
- Type of sample container(s) used
- Preservative(s) used
- Sample collection procedure and equipment
- Date and time of collection
- Sample identification number(s)
- Laboratory's sample identification number(s)
- References such as maps or photographs of the sampling site, if available
- Field observations
- Pertinent weather factors such as temperature, wind direction, and precipitation

Chain-of-custody records for the samples will be maintained. A sample will be considered to be "in custody" of an individual if said sample is either in

direct view of or otherwise directly controlled by that individual. Storage of samples during custody will be accomplished according to established preservation techniques, in appropriately sealed and numbered containers. Chain-of-custody will be accomplished when the samples are directly transferred from one individual to the next, with the first individual witnessing the signature of the recipient on the chain-of-custody record.

The chain-of-custody records will contain the following information:

- Respective sample numbers of the laboratory and B&L, if available
- Signature of the collector
- Date and time of collection
- Sample type (e.g., groundwater, sediment)
- Identification of well or sampling point
- Number of containers
- Parameter requested for analysis
- Signature of person(s) involved in the chain of possession
- Description of sample bottles and their condition
- Problems associated with sample collection (e.g., breakage, preservatives missing), if any

A sample chain-of-custody form is presented as Figure B-2.

Samples will be placed in a cooler on ice. If samples are to be hand delivered, no further measures are required. If samples are to be shipped via common carrier (e.g., FedEx), bottle lids and labels are to be covered with clear tape, with each sample bottle placed in a sealable plastic bag and individually wrapped in bubble wrap. Ice is to be double-bagged. The cooler drain and

seams will be sealed with duct tape. The cooler will be sealed with strapping tape and custody seals shall be placed on the front and back of the cooler lid.

5.2 Field Sample QA/QC Procedures

5.2.1 Duplicates and Matrix Spike Samples

To monitor the integrity of field sampling and equipment cleaning techniques, the following field quality assurance/quality control (QA/QC) procedures will be implemented.

Duplicate samples will be collected at a frequency of one for every twenty samples from each matrix. If less than twenty samples are collected from any matrix, then at least one duplicate will be collected from that matrix. Duplicate samples are analyzed to check the sample collection and handling process relative to the uniformity of the samples.

Matrix spike/matrix spike duplicate (MS/MSD) samples will be collected at a frequency of one for every twenty samples for each sample matrix. If less than twenty samples are collected from any matrix, then at least one MS/MSD will be collected from that matrix. The purpose of these samples is to evaluate the effect of the sample matrix on the analytical results.

5.3 Sample Analysis QA/QC Procedures

5.3.1 Overview

The purpose of the laboratory QA/QC program is to establish and maintain laboratory practices that will ensure the scientific reliability and comparability of the data generated in support of the project.

Quality assurance (QA) is the system for ensuring that all information, data, and resulting decisions compiled under an investigation are technically sound, statistically valid, and properly documented. Quality control (QC) is the mechanism through which quality assurance achieves its goals. Quality control programs define the frequency and methods of checks, audits, and reviews necessary to identify problems and dictate corrective action, thus high quality data.

The laboratory QA/QC program will outline the purpose, policies, organizations, and operations established to support the chemical analyses.

The laboratory QA/QC procedures will be submitted as part of the laboratory selection process. The laboratory selected will be certified under the NYSDOH ELAP program.

5.3.2 Laboratory Selection Criteria

A laboratory will be selected that is qualified to perform the work required for the site. Examples of selection criteria are as follows:

1. Capabilities (facilities, personnel, instrumentation):
 - a. Prior experience
 - b. Certification
 - c. References (recommendations by other users of the laboratory)
2. Services:
 - a. Turnaround time
 - b. Completeness of reports
 - c. Compliance with holding times

3. QA/QC Programs: All laboratories must have a detailed written QA/QC program meeting the minimum requirements of the NYS Department of Environmental Conservation and the NYS Department of Health, and must be NYSDOH ELAP ASP/CLP certified for all analyses being performed.
4. Approvals: All laboratories used will be approved by Barton & Loguidice, D.P.C., prior to the analysis of samples. The selected analytical laboratory will be committed to providing analytical services for groundwater, soil, sediment, and surface water that are commensurate with the required protocols and current state-of-the-art analytical procedures, laboratory practices and instrumentation.

5.3.3 Data Validator Selection Criteria

A third-party independent data validator will be selected based on the required qualifications presented in Attachment A, and must meet NYSDEC and NYSDOH requirements for performing data validation.

Attachment A
Data Validation Scope of Work

Data Validation Scope of Work – NYSDEC RI/FS Program

Data validation is the systematic process by which data quality is determined with respect to data quality criteria that are defined in project and laboratory quality control programs and in the referenced analytical methods. The data validation process consists of an assessment of the acceptability or validity of project data with respect to stated project goals and requirements for data usability. Ideally, data validation establishes the data quality in terms of project data quality objectives. Data validation consists of data editing, screening, checking, auditing, certification, review and interpretation. The purpose of data validation is to define and document analytical data quality and determine if the data quality is sufficient for the intended use(s) of the data. In accordance with NYSDEC requirements, all project data must be of known and acceptable quality. Data validation is performed to establish the data quality for all data which are to be considered when making project closure or IRM decisions. Laboratories will be required to submit results that are supported by sufficient back-up data and QA/QC results to enable the reviewer to conclusively determine the quality of the data.

Qualifications of a Data Validator

In order to ensure an acceptable level of performance, the following qualifications and requirements are established for all consultants or contractors functioning as data validators. These qualifications and requirements shall apply whether the consultant/contractor is: a) retained directly through contracts executed by the State; b) retained as a subcontractor to a consultant functioning under contracts executed by the State; or c) retained by a responsible party functioning under the guidance and direction of an order on consent. The consultant/contractor functioning as a data validator shall be independent of the laboratory generating the data.

The consultant/contractor functioning as a data validator shall provide evidence that all staff members involved in the data validation process have: a) a bachelor's degree in chemistry or natural sciences with a minimum of 20 hours in chemistry; and b) one (1) year experience in the implementation and application of the protocols used in generating the data for which they are responsible. The successful completion of the EPA Data Validation Training course may be substituted for the analytical experience requirement. In addition, these same staff members must have a minimum of one (1) year experience evaluating CLP data packages for contract protocol compliance.

Specific Tasks to be Completed by the Data Validator

Evaluated Completeness of Laboratory Data Package

The data validator shall review the data package to determine completeness. A complete data package will consist of the following components:

- All sample chain-of-custody forms;
- The case narrative(s) including all sample analysis summary forms*;

- Quality Assurance/Quality Control summaries including all supporting documentation;
- All relevant calibration data including all supporting documentation;
- Instrument and method performance data;

****These forms appear as an addendum to the NYSDEC CLP forms package and will be required for all data submissions regardless of the protocol requested.***

- Documentation showing the laboratory's ability to attain the contract-specified method detection limits for all target analytes in all required matrices;
- All data report forms including examples of the calculations used in determining final concentrations; and
- All raw data used in the identification and quantification of the contract-specified target compounds.

All deficiencies in the requirement for completeness shall be reported to the consultant immediately. The laboratory shall be contacted by the consultant's Quality Assurance Officer and shall be given ten calendar days to produce the documentation necessary to remove the deficiencies.

Compliance of Data Packages with Work Plan

The validator shall review the submitted data package to determine compliance with those portions of the Work Plan that pertain to the generation of laboratory data. Compliance is defined by the following criteria:

- The data package is complete as defined above;
- The data has been generated and reported in a manner consistent with the requirements of the Quality Assurance Program Plan and the laboratory subcontract;
- All protocol-required QA/QC criteria have been met;
- All instrument tune and calibration requirements have been met for the timeframe during which the analyses were completed;
- All protocol-required initial and continuing calibration data is present and documented;
- All data reporting forms are complete for all samples submitted. This will include all requisite flags, all sample dilution/concentration factors, and all pre-measurement sample cleanup procedures; and
- All problems encountered during the analytical process have been reported in the case narrative along with any and all actions taken by the laboratory to correct these problems.

The data validation task requires that the validator conduct a detailed comparison of the reported data with raw data submitted as part of the supporting documentation package. It is the responsibility of the validator to determine that the reported data can be completely substantiated by applying protocol-defined procedures for the identification and quantification of the individual analytes. To assist the validator in this determination, the following documents are recommended; however, the EPA Functional Guidelines will be used for format only. The specific requirements noted in the project Work Plan, such as holding times or special analytical project needs, are prerequisite to those noted in the Functional Guidelines.

- The particular protocol(s) under which the data was generated (e.g., NYSDEC Contract Laboratory Protocol; EPA SW-846; EPA Series 500 Protocols).
- Data validation guidance documents such as:
- “Functional Guidelines for Evaluation of Inorganic Data” (published by EPA Region 2);
- “Functional Guidelines for Evaluation of Organic Analyses”, Technical Directive Document No. HQ-8410-01 (published by EPA); and
- “Functional Guidelines for Evaluating Pesticides/PCB’s Analyses” Technical Directive Document No. HQ-8410-01 (published by EPA).

NOTE: These documents undergo periodic revision. It is assumed that the selected data validator will have access to the most current applicable documents and guidelines.

Reporting

The data validator will be required to submit a data validation package that meets or exceeds all of the requirements of the New York State Department of Environmental Conservation Division of Environmental Remediation QA Guideline “Guidance for the Development of Data Usability Summary Reports”, and reports the results of the data review process. This report shall be submitted to the Project Manager or his designee and shall include the following:

- A general assessment of the data package as determined by the degree to which the package is complete and complies with the protocols set forth in the Work Plan;
- A detailed description of any and all deviations from the required protocols. These descriptions must include references to the portions of the protocols involved in the alleged deviations;
- Any and all failures in the validator’s attempt to reconcile the reported data with the raw data from which it was derived. Specific references must be included. Telephone logs should be included in the validation report;

- Detailed assessment by the validator of the degree to which the data has been compromised by any deviations from protocol, QA/QC breakdowns, lack of analytical control, etc., that occurred during the analytical process;
- The report shall include, as an attachment, a copy of the laboratory's case narrative, including the NYSDEC-required sample and analysis summary sheets;
- The report shall include an overall appraisal of the data package; and
- The validation report shall include a chart presented in a spreadsheet format consisting of site name, sample numbers, data submitted to laboratory, year of CLP or analytical protocol used, matrix, fractions analyzed (e.g., volatiles, semi-volatiles, PCB, metals, CN). Space should be provided for a reference to the NYSDEC CLP when non-compliance is involved and a column for an explanation of such violation.

Figure B-1
Field Sampling Data Sheet

FIELD SAMPLING DATA SHEET

SITE: _____

SAMPLE LOCATION: _____

CLIENT: _____

JOB #: _____

Weather Conditions: _____

Temp: _____

SAMPLE TYPE: Groundwater ☐
Sediment ☐

Surface Water ☐ Other (specify): _____
Leachate ☐ _____

WATER LEVEL DATA

Static Water Level (feet)*:	
Measured Well Depth (feet)*:	
Well Casing Diameter (inches):	
Volume in Well Casing (gallons):	

*depth from measuring point

Measuring Point: Top of Riser ☒

Other (specify): _____

Measured by _____

Time: _____ Date: _____

PURGING METHOD

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☐ Non-dedicated ☐

Volume of Water Purged (gallons): _____

Did well purge dry? No ☐ Yes ☐

Did well recover? No ☐ Recovery time: _____

SAMPLING METHOD

Equipment: Bailer ☐ Submersible Pump ☐ Air Lift System ☐
Bladder Pump ☐ Foot Valve ☐ Peristaltic Pump ☐
Dedicated ☐ Non-dedicated ☐

Sampled by: _____ Time: _____ Date: _____

SAMPLING DATA

Sample Appearance

Color: _____ Sediment: _____

Odor: _____

Field Measured Parameters

pH (Standard Units)		Sp. Conductivity (umhos/cm)	
Temperature (F)		Eh-Redox Potential (mV)	
Turbidity (NTUs)		Dissolved Oxygen (mg/L)	

Samples Collected (Number/Type): _____

Samples Delivered to: _____ *Time:* _____ *Date:* _____

COMMENTS: _____

Figure B-2
Chain-of-Custody Form



CHAIN OF CUSTODY RECORD

[illegible]

Appendix A

Chip, Wipe, and Sweep Sampling (USEPA Publication No. 2011)



CHIP, WIPE, AND SWEEP SAMPLING

SOP#: 2011
DATE: 11/16/94
REV. #: 0.0

1.0 SCOPE AND APPLICATION

This standard operating procedure (SOP) outlines the recommended protocol and equipment for collection of representative chip, wipe, and sweep samples to monitor potential surficial contamination.

This method of sampling is appropriate for surfaces contaminated with non-volatile species of analytes (i.e., PCB, PCDD, PCDF, metals, cyanide, etc.) Detection limits are analyte specific. Sample size should be determined based upon the detection limit desired and the amount of sample requested by the analytical laboratory. Typical sample area is one square foot. However, based upon sampling location, the sample size may need modification due to area configuration.

These are standard (i.e., typically applicable) operating procedures which may be varied or changed as required, dependent on site conditions, equipment limitations or limitations imposed by the procedure or other procedure limitations. In all instances, the ultimate procedures employed should be documented and associated with the final report.

Mention of trade names or commercial products does not constitute U.S. EPA endorsement or recommendation for use.

2.0 METHOD SUMMARY

Since surface situations vary widely, no universal sampling method can be recommended. Rather, the method and implements used must be tailored to suit a specific sampling site. The sampling location should be selected based upon the potential for contamination as a result of manufacturing processes or personnel practices.

Chip sampling is appropriate for porous surfaces and is generally accomplished with either a hammer and chisel, or an electric hammer. The sampling device should be laboratory cleaned and wrapped in clean, autoclaved aluminum foil until ready for use. To

collect the sample, a measured and marked off area is chipped both horizontally and vertically to an even depth of 1/8 inch. The sample is then transferred to the proper sample container.

Wipe samples are collected from smooth surfaces to indicate surficial contamination; a sample location is measured and marked off. While wearing a new pair of surgical gloves, a sterile gauze pad is opened, and soaked with solvent. The solvent used is dependent on the surface being sampled. This pad is then stroked firmly over the sample surface, first vertically, then horizontally, to ensure complete coverage. The pad is then transferred to the sample container.

Sweep sampling is an effective method for the collection of dust or residue on porous or non-porous surfaces. To collect such a sample, an appropriate area is measured off. Then, while wearing a new pair of disposable surgical gloves, a dedicated brush is used to sweep material into a dedicated dust pan. The sample is then transferred to the proper sample container.

Samples collected by all three methods are then sent to the laboratory for analysis.

3.0 SAMPLE PRESERVATION, CONTAINERS, HANDLING, AND STORAGE

Samples should be stored out of direct sunlight to reduce photodegradation, cooled to 4°C and shipped to the laboratory performing the analysis. Appropriately sized laboratory cleaned, glass sample jars should be used for sample collection. The amount of sample required will be determined in concert with the analytical laboratory.

4.0 INTERFERENCES AND POTENTIAL PROBLEMS

This method has few significant interferences or problems. Typical problems result from rough porous

surfaces which may be difficult to wipe, chip, or sweep.

5.0 EQUIPMENT

Equipment required for performing chip, wipe, or sweep sampling is as follows:

- C Lab clean sample containers of proper size and composition
- C Site logbook
- C Sample analysis request forms
- C Chain of Custody records
- C Custody seals
- C Field data sheets
- C Sample labels
- C Disposable surgical gloves
- C Sterile wrapped gauze pad (3 in. x 3 in.)
- C Appropriate pesticide (HPLC) grade solvent
- C Medium sized laboratory cleaned paint brush
- C Medium sized laboratory cleaned chisel
- C Autoclaved aluminum foil
- C Camera
- C Hexane (pesticide/HPLC grade)
- C Iso-octane
- C Distilled/deionized water

6.0 REAGENTS

Reagents are not required for preservation of chip, wipe or sweep samples. However, reagents will be utilized for decontamination of sampling equipment.

7.0 PROCEDURES

7.1 Preparation

1. Determine the extent of the sampling effort, the sampling methods to be employed, and the types and amounts of equipment and supplies needed.
2. Obtain necessary sampling and monitoring equipment.
3. Decontaminate or preclean equipment, and ensure that it is in working order.
4. Prepare scheduling and coordinate with staff, clients, and regulatory agency, if appropriate.
5. Perform a general site survey prior to site entry in accordance with the site specific

Health and Safety Plan.

6. Mark all sampling locations. If required the proposed locations may be adjusted based on site access, property boundaries, and surface obstructions.

7.2 Chip Sample Collection

Sampling of porous surfaces is generally accomplished by using a chisel and hammer or electric hammer. The sampling device should be laboratory cleaned or field decontaminated as per the Sampling Equipment Decontamination SOP. It is then wrapped in cleaned, autoclaved aluminum foil. The sampler should remain in this wrapping until it is needed. Each sampling device should be used for only one sample.

1. Choose appropriate sampling points; measure off the designated area. Photo documentation is optional.
2. Record surface area to be chipped.
3. Don a new pair of disposable surgical gloves.
4. Open a laboratory-cleaned chisel or equivalent sampling device.
5. Chip the sample area horizontally, then vertically to an even depth of approximately 1/8 inch.
6. Place the sample in an appropriately prepared sample container with a Teflon lined cap.
7. Cap the sample container, attach the label and custody seal, and place in a plastic bag. Record all pertinent data in the site logbook and on field data sheets. Complete the sampling analysis request form and chain of custody record before taking the next sample.
8. Store samples out of direct sunlight and cool to 4EC.
9. Follow proper decontamination procedures then deliver sample(s) to the laboratory for analysis.

7.3 Wipe Sample Collection

Wipe sampling is accomplished by using a sterile

gauze pad, adding a solvent in which the contaminant is most soluble, then wiping a pre-determined, pre-measured area. The sample is packaged in an amber jar to prevent photodegradation and packed in coolers for shipment to the lab. Each gauze pad is used for only one wipe sample.

1. Choose appropriate sampling points; measure off the designated area. Photo documentation is optional.
2. Record surface area to be wiped.
3. Don a new pair of disposable surgical gloves.
4. Open new sterile package of gauze pad.
5. Soak the pad with solvent of choice.
6. Wipe the marked surface area using firm strokes. Wipe vertically, then horizontally to insure complete surface coverage.
7. Place the gauze pad in an appropriately prepared sample container with a Teflon-lined cap.
8. Cap the sample container, attach the label and custody seal, and place in a plastic bag. Record all pertinent data in the site logbook and on field data sheets. Complete the sampling analysis request form and chain of custody record before taking the next sample.
9. Store samples out of direct sunlight and cool to 4°C.
10. Follow proper decontamination procedures, then deliver sample(s) to the laboratory for analysis.

7.4 Sweep Sample Collection

Sweep sampling is appropriate for bulk contamination. This procedure utilizes a dedicated, hand held sweeper brush to acquire a sample from a pre-measured area.

1. Choose appropriate sampling points; measure off the designated area. Photo documentation is optional.
2. Record the surface area to be swept.

3. Don new pair of disposable surgical gloves.
4. Sweep the measured area using a dedicated brush; collect the sample in a dedicated dust pan.
5. Transfer sample from dust pan to sample container.
6. Cap the sample container, attach the label and custody seal, and place in a plastic bag. Record all pertinent data in the site log book and on field data sheets. Complete the sampling analysis request form and chain of custody record before taking the next sample.
7. Store samples out of direct sunlight and cool to 4EC.
8. Leave contaminated sampling device in the sample material, unless decontamination is practical.
9. Follow proper decontamination procedures, then deliver sample(s) to the laboratory for analysis.

8.0 CALCULATIONS

Results are usually provided in mg/g, µg/g, mass per unit area, or other appropriate measurement. Calculations are typically done by the laboratory.

9.0 QUALITY ASSURANCE/ QUALITY CONTROL

The following general quality assurance procedures apply:

1. All data must be documented on standard chain of custody forms, field data sheets or within the site logbook.
2. All instrumentation must be operated in accordance with operating instructions as supplied by the manufacturer, unless otherwise specified in the work plan. Equipment checkout and calibration activities must occur prior to sampling/operation, and they must be documented.

The following specific quality assurance activities apply to wipe samples:

For wipe samples, a blank should be collected for each sampling event. This consists of a sterile gauze pad, wet with the appropriate solvent, and placed in a prepared sample container. The blank will help identify potential introduction of contaminants via the sampling methods, the pad, solvent or sample container. Spiked wipe samples can also be collected to better assess the data being generated. These are prepared by spiking a piece of foil of known area with a standard of the analyte of choice. The solvent containing the standard is allowed to evaporate, and the foil is wiped in a manner identical to the other wipe samples.

Specific quality assurance activities for chip and sweep samples should be determined on a site specific basis.

10.0 DATA VALIDATION

A review of the quality control samples will be conducted and the data utilized to qualify the environmental results.

11.0 HEALTH AND SAFETY

When working with potentially hazardous materials, follow EPA, OSHA and corporate health and safety procedures.

12.0 REFERENCES

U.S. EPA, A Compendium of Superfund Field Operation Methods. EPA/540/5-87/001.

NJDEP Field Sampling Procedures Manual, February, 1988.

Appendix C

Citizen Participation Plan

**Former Standard Shade Roller Site
Brownfield Cleanup Project
NYSDEC Site No. C645049**

**City of Ogdensburg
St. Lawrence County, New York**

Appendix C Citizen Participation Plan

**March 2012
(Revised October 2012)**

Former Standard Shade Roller Site
Brownfield Cleanup Project
NYSDEC Site No. C645049

City of Ogdensburg
St. Lawrence County, New York

Appendix C
Citizen Participation Plan

March 2012
(Revised October 2012)

Prepared For:

City of Ogdensburg
Department of Planning and Development
Ogdensburg City Hall
330 Ford Street – Room 11
Ogdensburg, New York 13669

Prepared By:

Barton & Loguidice, P.C.
Engineers • Environmental Scientists • Planners • Landscape Architects
290 Elwood Davis Road
Box 3107
Syracuse, New York 13220



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1.0 Introduction

The City of Ogdensburg has entered into the New York State Department of Environmental Conservation's (NYSDEC's) Brownfield Cleanup Program (BCP) to address residual contamination present at the former Standard Shade Roller site, which is located at 541 Covington Street in the City of Ogdensburg, St. Lawrence County, New York. The subject property is currently owned by the City of Ogdensburg, as recorded in the St. Lawrence County Clerk's Office as Instrument I.D. No. 2007-14552; Tax Parcel Map I.D. No. 48.077-1-2. A site location map is included as Figure 1 and a site plan as Figure 2.

The subject property has supported a variety of industrial uses since the turn of the century. Previous site uses included boat manufacturing, match manufacturing, brewing, shade roller manufacturing, and milling. During its final period of active operation (which ended in 1997), the subject property was occupied by the Joanna Window Décor Division of the Crown Home Furnishings Company. Joanna Window Décor manufactured window shade hardware, and part of this process included the plating of metals. The zinc-cyanide electroplating process, which occurred in the main building of the facility, was initiated in 1945 and continued until 1987. From 1987 through 1992, the electroplating process was cyanide-free, and then in 1992 the electroplating process was terminated at the facility.

Since 1991, there have been a total of twelve (12) environmental assessments and/or subsurface investigations conducted at the former Standard Shade Roller site. Examination of the collected soil and groundwater quality data reveals that several areas of the site have been detrimentally impacted by metals contamination, presumably due to the prior plating operations at the plant. In addition, elevated concentrations of volatile and semi-volatile organic compounds have been detected in subsurface soil and groundwater samples collected at the site.

The City of Ogdensburg has entered the former Standard Shade Roller site into the BCP in order to conduct a supplemental subsurface soil and groundwater

investigation in select areas of the site for the purpose of addressing previously identified data gaps, and to identify and eliminate, to the greatest extent possible, contaminant source areas with the use of interim remedial measures (IRMs). The supplemental field investigation is designed to provide data of adequate technical content to support the development and evaluation of remedial alternatives as part of the Site Investigation/Remedial Alternatives Report (SI/RAR). The objectives of the field investigation are to:

- Further characterize the nature and extent of residual surface and subsurface soil contamination;
- Characterize groundwater flow conditions and further delineate the nature and extent of groundwater contamination;
- Evaluate the presence and extent of soil gas contamination if warranted;
- Collect data to evaluate the potential risks that the site may pose to human health and the environment; and
- Collect data to adequately evaluate potential remedial alternatives.

Additional site information is provided in Section 3.0 of this Plan, along with the Remedial Investigation Work Plan that is available for review at the document repositories outlined in Section 9.0.

The objective of this Citizen Participation Plan (CPP) is to maintain an open dialogue between the City of Ogdensburg and adjacent residents regarding activities associated with the Site Investigation and possible impacts that these activities may have on the local community. This Plan will consist of a continuing exchange of information, ideas, concerns or preferences so that adequate public involvement is maintained throughout the duration of the project, and citizens can participate more fully in the decision making process. Extensive public involvement is also required by the NYSDEC during both the investigation and cleanup stages of brownfield sites. The plan also addresses:

- Information about the site's history, planned site investigations and/or cleanup activities;
- A description of planned citizen participation activities including tentative schedules; and
- A list of project contacts who are knowledgeable with the project.

This CPP will provide the community with an overview of public involvement activities scheduled throughout the project and help municipal officers monitor public involvement activities. The CPP has been assembled by the City of Ogdensburg in consultation with NYSDEC. The plan is continually updated to include any changes in new fact sheets, additions to contact lists and changes in citizen involvement activities.

2.0 What is a Brownfield?

A Brownfield is any real property where redevelopment or re-use may be complicated by the presence or potential presence of a hazardous waste, petroleum, pollutant, or contaminant. The typical brownfield is usually a former industrial or commercial property that may have soil or groundwater contamination as a result of improper activities or accidental chemical spills. These problems not only pose environmental concerns, but may also cause legal and financial burdens on local communities.

In 2003, the Brownfield Cleanup Program was created. This program provides liability limitations and tax credits to the private sector if the site investigation and clean-up are completed under NYSDEC oversight. The applicant must be a participant or volunteer of the site per ECL §27-1405.

The Brownfields Program is administered by the NYSDEC with assistance from the New York State Department of Health (NYSDOH).

3.0 Site Information

Up until very recently, the vacant site contained ten (10) abandoned and slowly deteriorating buildings, the locations of which are depicted on the enclosed Site Plan (Figure 2). As noted on Figure 2, the buildings were used for a variety of purposes during the shade manufacturing operations which ceased in 1997. Based on information presented in a July 2008 *Phase IA Literature Review and Archeological Sensitivity Assessment* Report prepared by Hartgen Archeological Associates, Inc. (Hartgen) for the City of Ogdensburg, the buildings previously contained equipment maintenance shops, boiler rooms, metal plating areas, metals machining areas, and materials warehouse areas. However, according to the Hartgen Phase IA report, the location and configuration of the originally constructed buildings was altered during the course of site development which occurred over a period of approximately 100 years. Furthermore, based on a review of historical aerial photographs and Sanborn Fire Insurance Maps, Hartgen determined that the subject property has nearly doubled in size since the onset of its initial development. Specifically, with the use of fill material of unknown origin, the original shoreline of the St. Lawrence River has been extended a distance of 40 to over 100 feet in a northwesterly direction. For example, Shed Nos. 1, 2A, 2B, 2C, and No.3, as well as the Garage, were all constructed on fill material.

With the cessation of shade manufacturing operations in 1997, the on-site buildings were left abandoned and no longer maintained. Consequently, when the City of Ogdensburg took ownership of the property in 1997, there was evidence of wind and water damage to several of the buildings. Deterioration of the buildings continued over the next ten (10) year period, and the City ultimately decided that in order for future development of the property to occur, the buildings would need to be demolished. Therefore, in 2007 the City applied to the Empire State Development Corporation (ESDC) for a Restore New York Communities Initiative Program Grant for the purpose of performing asbestos abatement and building demolition activities. The City was subsequently awarded \$700,000 in Restore NY funding, and in 2010 the City retained the services of Barton & Loguidice, P.C. (B&L) to oversee and manage the performance

of asbestos abatement and building demolition activities. The asbestos abatement and building demolition work is currently ongoing, and is anticipated to be completed by March 2012.

In September of 2010, the City of Ogdensburg was awarded a \$200,000 Brownfields Cleanup Grant from the U.S. Environmental Protection Agency (EPA) to be used at the former Standard Shade Roller site. A significant amount of the EPA money is to be used for the remediation of metals contaminated soils that exist underneath the concrete floor in the main building, and in the alley area north of the main building near the former plating operation. In addition, a portion of the EPA Brownfields Cleanup Grant funds will be used to characterize and dispose of potentially hazardous wastes/materials that were discovered by B&L to exist inside the main building and other on-site structures.

As previously noted, the presence of subsurface soil and groundwater contamination at the former Standard Shade Roller site is well documented, and therefore it is anticipated that future remedial activities may be necessary in order to clean up the site to NYSDEC Part 375 Restricted-Residential Use standards. However, prior to the design and implementation of a site-specific remediation plan, there are several subsurface soil and groundwater quality data gaps that must be addressed. Specifically, the lateral and vertical extent of subsurface soil and groundwater contamination in certain areas of the site has not been adequately delineated for the purpose of conducting a remedial alternatives analysis. In addition, it is possible that one or more contaminant source areas still exists on site that has yet to be identified and properly evaluated.

Given the above, the purpose of this BCP project is to: 1) identify, and if possible, eliminate accessible contaminant source areas with the use of an interim remedial measure (IRM); and 2) fully delineate the lateral and vertical extent of subsurface soil and groundwater contamination at the subject property for the purpose of completing a remedial alternatives analysis.

4.0 Upcoming Site Investigation Activities

The City of Ogdensburg has entered into an agreement with the NYSDEC to pursue an investigation of contamination at the site. This program designates the preparation of a Remedial Investigation Report (RI Report). The City of Ogdensburg has retained Barton & Loguidice, P.C. (B&L) to perform the remedial investigation on the property. B&L is an environmental engineering/consulting firm based in Syracuse, New York. As part of the remedial investigation, B&L will perform the following tasks:

1. Site survey and preparation of site map;
2. Community relations;
3. IRMs;
4. Supplemental subsurface investigation;
5. Groundwater investigation;
6. Soil vapor survey (if warranted);
7. Ecological assessment;
8. Public health and wildlife risk evaluation; and
9. Data validation.

The objectives and methodologies of these field activities are described in greater detail in the Remedial Investigation Work Plan and within subsequent sections of this appendix.

The investigation is tentatively scheduled to begin in the summer of 2012 and should take about one (1) year to complete. After the investigation is completed, the City of Ogdensburg will submit a Draft Remedial Investigation Report (RI Report) to NYSDEC and NYSDOH for review. This report will include the results of the remedial investigation, and also evaluate alternatives for addressing contamination at the Site. After NYSDEC and NYSDOH review the RI Report, it will be determined if cleanup actions are necessary.

After the RI Report is approved, and if cleanup is required, the City of Ogdensburg will prepare a Remedial Work Plan.

5.0 Specific Citizen Participation Activities

The City of Ogdensburg, in conjunction with the NYSDEC, will ensure that the public is informed about the progress of the remedial investigation and any remedial action. To increase citizen participation in the brownfield project, the City of Ogdensburg and the NYSDEC will offer several opportunities for citizen involvement during both the investigation and the cleanup, if deemed necessary.

If cleanup is required, a fact sheet regarding the proposed Remedial Work Plan (RWP) will be mailed and the RWP will be made available to the public. The public will then have 45 days to review and comment on the RWP. If requested by the affected community, NYSDEC will also present the plan at a public meeting. After the 45-day comment period has elapsed, NYSDEC will approve or disapprove the RWP. If the RWP is approved, the City of Ogdensburg will mail a fact sheet summarizing the upcoming remedial action. See the following table for a tentative schedule of citizen participation activities:

Table 1 Citizen Participation Activities			
The City of Ogdensburg Will:	At this Point in the Remedial Program	Activity Tentatively Is Scheduled to be Completed:	The Activity was Completed:
Set up Document Repositories, where citizens can review site-related documents, at a public location near the site. Place relevant documents, such as the investigation work plan, at the document repositories	Before the start of the investigation	April 2012	TBA
Create a list of people ("Contact List") interested in the site, including residents, government representatives, media, and any interested civic, environmental or business groups.	Before the start of the investigation	April 2012	TBA
Create a Citizen Participation Plan and place it in the document repositories.	Before the start of the investigation	April 2012	TBA
<ul style="list-style-type: none"> Place draft Remedial Investigation (RI) Work Plan in document repository. Mail fact sheet to site contact list about the proposed RI Work Plan and 45-day public comment period. Conduct 45-day public comment period on the draft RI Work Plan. Place approved RI Work Plan in document repository. 	After RI Work Plan is submitted to NYSDEC	May 2012	August 2012

Table 1 Citizen Participation Activities			
The City of Ogdensburg Will:	At this Point in the Remedial Program	Activity Tentatively Is Scheduled to be Completed:	The Activity was Completed:
<ul style="list-style-type: none"> Mail fact sheet to site contact list that describes RI results. Place approved RI Report in document repository. 	Following completion of the remedial investigation.	Spring 2013	TBA
<ul style="list-style-type: none"> Place proposed Remedial Work Plan (RWP) in document repository. Mail fact sheet to site contact list that describes proposed RWP and announces 45-day comment period. Public meeting by NYSDEC if requested by the affected community. 	If cleanup is required: after the RWP is submitted to NYSDEC	Summer 2013	TBA
Before the start of remedial action, mail fact sheet to site contact list summarizing upcoming remedial action.	After approval of RWP	Fall 2013	TBA
<ul style="list-style-type: none"> Mail fact sheet to site contact announcing that remedial action has been completed. Mail fact sheet to site contact list announcing issuance of the Certificate of Completion (COC). 	After remedial action is completed and NYSDEC has approved the Final Engineering Report (These two fact sheets may be combined if there is no delay in COC issuance)	Spring 2014	TBA

The following presents a summary of specific Citizen Participation activities that will be performed as part of this project:

1. A fact sheet will be mailed to the site contact list about the draft RI Work Plan and announcing a 45-day public comment period on the draft RI Work Plan. A copy of the approved Remedial Investigation Work Plan will be placed in the local and regional document repositories.
2. A fact sheet will be mailed to the site contact list describing the results of the RI.
3. If cleanup is required, a copy of the draft Remedial Work Plan (RWP) will be placed in the project's document repositories. A fact sheet will be mailed to the site contact list about the proposed RWP and announcing a 45-day public comment period.

4. After the RWP is approved, a fact sheet will be mailed to the site contact list summarizing the upcoming remedial action.

At the time the Final Engineering Report is approved by NYSDEC, a fact sheet will be mailed to the site contact list announcing that the remedial action has been completed. Also, a fact sheet will be mailed to the site contact list announcing the issuance of a Certificate of Completion.

6.0 Technical Assistance for Community Members

If requested, the City of Ogdensburg will provide additional technical assistance to community members. This assistance could include: meetings between technical staff and interested community members to discuss technical information about the project, a public availability session in which project staff would answer questions on a one-on-one basis, or other appropriate activities. If you wish to request such assistance, please contact Ms. Andrea Smith of the City of Ogdensburg at 315-393-7150.

7.0 Site Issues and Communication Needs

This section of the plan is designed to help the City of Ogdensburg identify and document Site related issues important to the community near the Site, as well as identify the information needs of the community and the NYSDEC. This information will help the Applicant to effectively implement the Citizen Participation Plan requirements and guide any additional citizen participation activities that may be needed.

1. Major Issues to the Community –The City of Ogdensburg has attempted to identify major issues of interest to the community surrounding the Site. The City of Ogdensburg is aware of the following general community concerns:
 - Residents are concerned about property values being affected by the site.
2. Information Needed from the Community – Below is a list of information that the City of Ogdensburg needs from the community to assist with the site investigation and, if necessary, determination of appropriate cleanup measures:
 - Primary and secondary concerns with remedial investigation results, if any. The public will have an opportunity to comment during the 30-day public comment period on the Remedial Investigation Work Plan.
3. Information to be Communicated to the Community – Below is a list of information that the City of Ogdensburg wants to communicate to the community through the citizen participation program:
 - To inform neighbors of the site about why the investigation is being conducted.

- To inform the site contact list how to get information and how to get involved with the project.
- Inform citizens that their concerns are valuable and necessary.

8.0 Document Repositories

For the duration of the Brownfields Cleanup Program (BCP) at the Former Standard Shade Roller site, documents pertaining to the activities undertaken at the project site will be placed in the following local and regional repositories for public review:

Local Repositories

1. City of Ogdensburg
City Clerk's Office
City Hall - 330 Ford Street
Ogdensburg, NY 13669
(315) 393-3540
2. Ogdensburg Public Library
312 Washington Street
Ogdensburg, NY, 13669
(315) 393-4325

Regional Repositories

1. New York State Department of Environmental Conservation
Region 6
State Office Building
317 Washington Street
Watertown, New York 13601
Contact: Peter Ouderkirk
Phone: 315-785-2513
2. Barton & Loguidice, P.C.
290 Elwood Davis Road
P.O. Box 3107
Syracuse, New York 13220
Contact: Scott Nostrand
Phone: 315-457-5200

9.0 Contact List

For this project, the contact list will consist of immediately adjacent property owners, local government officials, NYSDEC, NYSDOH, various St. Lawrence County media and other interested environmental groups. These are included below:

Neighboring Property Owners

1. Joseph M. Basta
619 Main Street
Ogdensburg, NY 13669
2. City of Ogdensburg
330 Ford Street
Ogdensburg, NY 13669
3. Alexander Rule
540 Covington Street
Ogdensburg, NY 13669
4. James Carter
536 Covington Street
Ogdensburg, NY 13669
5. Michelle L. Horton
532 Covington Street
Ogdensburg, NY 13669
6. Leslie R. MacMartin
530 Covington Street
Ogdensburg, NY 13669
7. Brent M. Binion
526 Covington Street
Ogdensburg, NY 13669
8. Christopher G. MacMartin
523 Covington Street
Ogdensburg, NY 13669
9. Lillianne Brassard
520 Covington Street
Ogdensburg, NY 13669

10. Elaine D. Brenno
514 Covington Street
Ogdensburg, NY 13669
11. Thomas Wing
513 Covington Street
Ogdensburg, NY 13669
12. Justin & Marsha B. Morrow
511 Covington Street
Ogdensburg, NY 13669
13. Jody Montroy
510 Covington Street
Ogdensburg, NY 13669
14. Debra L. Denny
509 Covington Street
Ogdensburg, NY 13669
15. Charles Pearson
508 Covington Street
Ogdensburg, NY 13669
16. Stephen J. Phelps
507 Covington Street
Ogdensburg, NY 13669
17. Rita K. Schmidt
505 Covington Street
Ogdensburg, NY 13669

NYSDOH Contacts

1. Wendy S. Kuehner, P.E.
Public Health Engineer 2
Bureau of Environmental Exposure Investigation
New York State Department of Health
Empire State Plaza
Corning Tower, Room 1787
Albany, NY 12237
(518) 402-7860

NYSDEC Contacts

1. Judy Drabicki
Regional Director
NYSDEC
Region 6 Headquarters
317 Washington Street
Watertown, New York 13601
2. Stephen Litwhiler
Regional Citizen Participation Specialist
NYSDEC
Region 6 Headquarters
317 Washington Street
Watertown, New York 13601
3. Pete Taylor
Regional DER Program Supervisor
NYSDEC
Region 6 Headquarters
317 Washington Street
Watertown, New York 13601
4. Peter S. Ouderkirk, P.E.
Project Manager/Engineer
NYSDEC - Region 6
Dulles State Office Building
317 Washington Street
Watertown, New York 13601-3787

Local Government Officials

1. William D. Nelson, Mayor
City of Ogdensburg
City Hall – 330 Ford Street
Ogdensburg, NY 13669
2. Andrea Smith, Interim Director
Department of Planning and Development
330 Ford Street – Room 11
Ogdensburg, NY 13669

3. Gregory M. Paquin, Chair
St. Lawrence County Board of Legislatures
Court House
48 Court Street
Canton, NY 13617-1194
4. Karen St. Hilaire, County Administrator
St. Lawrence County Board of Legislatures
Court House
48 Court Street
Canton, NY 13617-1194
5. Keith J. Zimmerman
St. Lawrence County Planning Board
48 Court Street
Canton, NY 13617
6. St. Lawrence County Office of Economic Development
80 State Highway 310
Canton, NY 13617

Local Newspapers

1. Ogdensburg Journal
308 Isabella Street
Ogdensburg, NY 13669
2. Watertown Daily Times
308 Isabella Street
Ogdensburg, NY 13669

Public Water Supplier

1. Kit W. Smith
Director of Public Works
City of Ogdensburg
901 Champlain Street
Ogdensburg, NY 13669

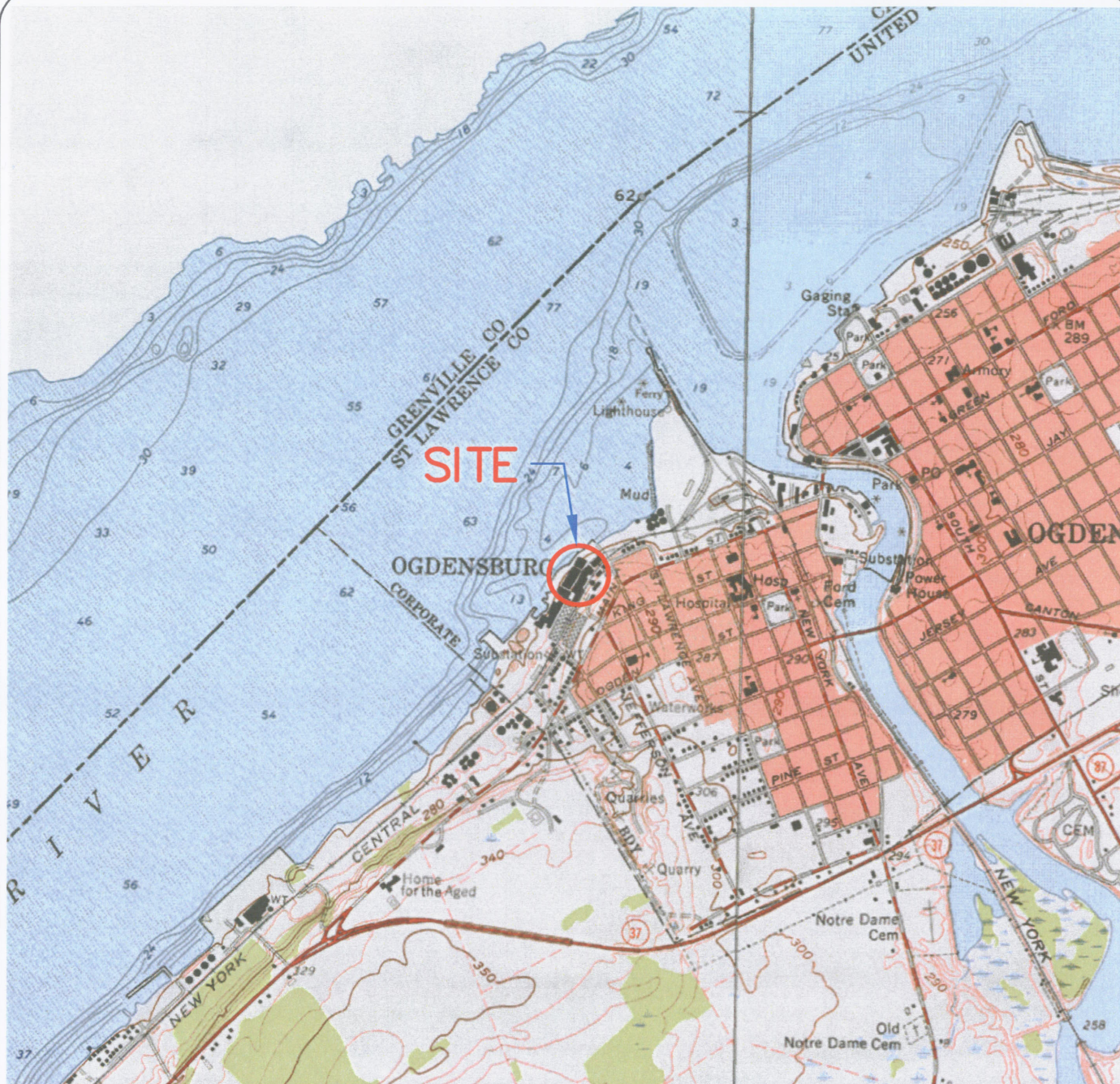
Local Media

1. WWNY TV News
19 Hodskin Street
Canton, NY 13617
2. Community Broadcasters
Attn: Bryan Mallette
199 Wealtha Avenue
Watertown, NY 13601

Figure 1
Project Location Map

NONE
PLOT
BANDMONOCHROME.CTB

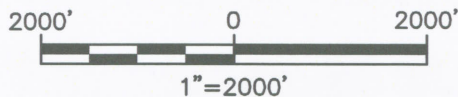
1/1/08-ALB-JHSr, 2/5/08-JHSr
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SOURCE: OGDENSBURG EAST AND WEST, NEW YORK U.S.G.S. QUADRANGLE MAP, DATE 1983.



QUADRANGLE LOCATION



Oguidice, P.C.

Engineers • Environmental Scientists • Planners • Landscape Architects

FORMER
STANDARD SHADE ROLLER SITE
BROWNFIELD PROJECT
SITE LOCATION MAP

CITY OF OGDENSBURG

ST. LAWRENCE COUNTY, N.Y.

Figure

1

Project No.

692.003

Figure 2
Site Plan

2008 AERIAL PHOTOGRAPH



Appendix D

Cost Estimate

COST ESTIMATE
Concrete Slab Demolition, Soil Excavation & Removal with Confirmatory Soil Sampling
Former Shade Roller Facility
City of Ogdensburg

Item	Unit cost	Unit	Quantity	Cost
General and Site Preparation				
Mobilization	\$12,000.00	ls	1	\$12,000
Demolition				
Concrete Slab Demolition	\$3.50	sf	2250	\$7,875
Concrete Slab Disposal (disposing slab as TSCA waste)	\$475.00	ton	170	\$80,750
Excavation				
Excavation, backfill, and compaction of clean site soils	\$50.00	cy	115	\$5,750
Excavation, backfill, and compaction of non-hazardous PCB soils from hotspot areas.	\$125.00	cy	15	\$1,875
PCB, Metal, SVOC, VOC contam. soil excavation, transport, disposal, & backfill (floor drain, drain pipe and MH-1 and MH-2) (>1ppm <50ppm)	\$100.00	ton	70	\$7,000
Haz-waste disposal (PCB levels >50ppm)	\$600.00	drum	3	\$1,800
Dewatering of excavations (if necessary)	\$10,000.00	ls	1	\$10,000
Floor Drain				
Sediment/sludge removal from floor drain	\$600.00	drum	3	\$1,800
Erosion Control				
Silt fence	\$3.50	ft	100	\$350
Final Site Work				
Clearance sampling (Metals, SVOC, VOC)	\$313.00	sample	30	\$9,390
Clearance sampling (PCBs)	\$54.00	sample	155	\$8,370
Decontamination				
Decontamination pad construction	\$5,000.00	ls	1	\$5,000
Equipment decon (trucks, excavator, etc.) confirmation wipe sampling.	\$5,000.00	ls	1	\$5,000
Community Air Monitoring Program				
Equipment Rental (PID and Dusttrac Monitors)	\$1,300.00	wk	3	\$3,900
B&L Oversight				
Field Technician	\$78.00	hr	150	\$11,700
Meals and Lodging	\$1,900.00	ls	1	\$1,900
Mileage	\$0.58	mile	1350	\$783
Subtotal:				\$175,243
				Subtotal
				\$175,243
				Engineering (10%)
				\$17,524
				Contingency (10%)
				\$17,524
				Total Estimated Costs
				\$210,292



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