Former Karg Brothers Tannery

FULTON COUNTY, NEW YORK

Site Management Plan

NYSDEC Site Number: E518022

Prepared for:
The City of Johnstown
Johnstown, New York

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Revisions to Final Approved Site Management Plan:

Revision #	Submitted Date	Summary of Revision	DEC Approval Date

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SITE MANAGEMENT PLAN

1.0 INTRODUCTION AND DESCRIPTION OF REMEDIAL PROGRAM

1.1 INTRODUCTION

This document is required as an element of the remedial program at the Former Karg Brothers Tannery Site (hereinafter referred to as the "Site") under the New York State (NYS) Environmental Restoration Program (ERP) administered by New York State Department of Environmental Conservation (NYSDEC). The site was remediated in accordance with State Assistance Contract (SAC) # C303712, Site # E518022, which was executed on January 14, 2005 and last amended on May 28, 2014.

1.1.1 General

The City of Johnstown entered into a SAC with the NYSDEC to remediate a 5.3-acre property located in the City of Johnstown, Fulton County, New York. This SAC required the Remedial Party, the City of Johnstown, to investigate and remediate contaminated media at the site. A figure showing the site location and boundaries of this 5.3-acre Site is provided in Figure 1. The boundaries of the site are more fully described in the metes and bounds site description that is part of the Environmental Easement.

After completion of the remedial work described in the Interim Remedial Measure (IRM) Work Plan, some contamination was left in the subsurface at this site, which is hereafter referred to as "remaining contamination." This Site Management Plan (SMP) was prepared to manage remaining contamination at the site until the Environmental Easement is extinguished in accordance with ECL Article 71, Title 36. All reports associated with the site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State.

This SMP was prepared by ARCADIS-US, Inc., on behalf of the City of Johnstown, in accordance with the requirements in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010, and the guidelines provided by NYSDEC. This SMP addresses the means for implementing the Institutional Controls (ICs) and Engineering Controls (ECs) that are required by the Environmental Easement for the site.

1.1.2 Purpose

The site contains contamination left after completion of the remedial action. Engineering Controls have been incorporated into the site remedy to control exposure to remaining contamination during the use of the site to ensure protection of public health and the environment. An Environmental Easement granted to the NYSDEC, and recorded with the Fulton County Clerk, will require compliance with this SMP and all ECs and ICs placed on the site. The ICs place restrictions on site use, and mandate operation, maintenance, monitoring and reporting measures for all ECs and ICs. This SMP specifies the methods necessary ensure compliance with all ECs and ICs required by the Environmental Easement for contamination that remains at the site. This plan has been approved by the NYSDEC, and compliance with this plan is required by the grantor of the Environmental Easement and the grantor's successors and assigns. This SMP may only be revised with the approval of the NYSDEC.

This SMP provides a detailed description of all procedures required to manage remaining contamination at the site after completion of the Remedial Action, including: (1) implementation and management of all Engineering and Institutional Controls; (2) media monitoring; (3) performance of periodic inspections, certification of results, and submittal of Periodic Review Reports; and (5) defining criteria for termination of treatment system operations.

To address these needs, this SMP includes two plans: (1) an Engineering and Institutional Control Plan for implementation and management of EC/ICs; (2) a Monitoring Plan for implementation of Site Monitoring;

This plan also includes a description of Periodic Review Reports for the periodic submittal of data, information, recommendations, and certifications to NYSDEC.

It is important to note that:

- This SMP details the site-specific implementation procedures that are required by the Environmental Easement. Failure to properly implement the SMP is a violation of the environmental easement, which is grounds for revocation of the Certificate of Completion (COC);
- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the SAC (# C303712, Site # E518022) for the site, and thereby subject to applicable penalties.

1.1.3 Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. In accordance with the Environmental Easement for the site, the NYSDEC will provide a notice of any approved changes to the SMP, and append these notices to the SMP that is retained in its files.

1.2 SITE BACKGROUND

1.2.1 Site Location and Description

The Site is located in the north-central portion of the City of Johnstown, Fulton County, New York (Figure 1), and is identified as Block 11 and Lot 6.11 on the Fulton County Tax Map 162.20. The site is an approximately 5.3-acre area consisting of the former Karg Brothers Tannery property bounded by Crescendoe Road and residences to the north, Cayadutta Creek to the south, a vacant commercial building to the east, and residences and commercial properties (including a former gas station) to the west. The boundaries of the site are more fully described in Appendix B – Metes and Bounds.

1.2.2 Site History

The former Karg Brothers facility was constructed in the early 1900s and operated until its closure in 1995, at which time it treated approximately 5,000 hides each day, consisting of degreasing, pickling, beaming, tanning, and finishing of cow, deer, and sheep hides (Figure 2).

The United States Environmental Protection Agency (USEPA) conducted an emergency removal action in 2001 to remove hazardous substances and demolish site buildings. Following the Removal Action, the ground cover largely consisted of the remaining

concrete slabs of the former buildings that were removed, with remaining areas covered by gravel, asphalt, or grass (Figure 3). The City of Johnstown entered the Environmental Restoration Program in 2004 to perform the required investigation of the site.

A Remedial Investigation / Alternatives Analysis (RI/AA) was conducted to evaluate the magnitude and extent of contaminants associated with the former tannery operations (i.e., heavy metals), at both on- and off-site properties, the potential for off-site migration of contaminants to the Cayadutta Creek, and to evaluate remedial alternatives for all affected on- and off-site media. The RI/AA identified the following contaminants of concern at the Site:

Arsenic
Chromium
Copper
Lead
Mercury
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(a)anthracene
Chrysene
Dibenz(a,h)anthracene
Isopropylbenzene

The site was subsequently covered with at least two feet of clean soil during Interim Remedial Measure (IRM) activities in 2013-2014, as described in the IRM Report (ARCADIS, 2015). The site is currently vacant. Adjacent parcels are either undeveloped or residential, with the exception of two former gasoline stations on either side of East Fulton Street. Following IRM activities, a No Further Action remedy was selected for the Site as set forth in the Record of Decision (March 2015), which includes institutional and engineering controls.

1.2.3 Geologic Conditions

Based upon regional mapping, the area of the site is largely underlain by Ordovician shale (Fisher et al., 1970). Near surface deposits at the site are largely mapped as lacustrine sand (Cadwell et al., 1988). The soils that were encountered during RI drilling activities were generally silt and fine to medium sand with gravel and silty clay units present in several borings. Fragments of shale, consistent with regional bedrock mapping, at the refusal depths of several borings suggest that depth to bedrock at the site is within 20 feet of the surface. As shown in the potentiometric map on Figure 4,

groundwater flow in the vicinity of the site is generally to the southwest, consistent with surface topography, toward Cayadutta Creek adjacent to the site. The average horizontal groundwater gradient in the overburden is 0.03. Calculated hydraulic conductivity values range from 3.86 to 18.37 feet per day (ft/d) which are generally consistent with the silty and well-sorted sand in which the wells are screened (Fetter, 1994).

1.3 SUMMARY OF REMEDIAL INVESTIGATION FINDINGS

A RI was performed to characterize the nature and extent of contamination at the site. The results of the RI are described in detail in the following reports:

Remedial Investigation/Alternatives Analysis Report, ARCADIS, February 2015.

Generally, the RI determined that historical uses of the property resulted in the release of heavy metals into the soil, present at concentrations greater than 6NYCRR Part 375 Protection of Groundwater and Restricted Residential Soil Cleanup Objectives.

Below is a summary of site conditions when the RI was performed between 2010 and 2015:

Soil

Unsaturated surface and subsurface soil at the site and off-site properties north of East Canal Street contained contaminants associated with tanneries (i.e. heavy metals), particularly arsenic, chromium, and lead, at concentrations which exceeded corresponding 6 NYCRR Part 375 Restricted Residential and Unrestricted Use SCOs.

As shown in Figure 5 and Table 1, arsenic, chromium, copper, lead, and mercury were the most frequently detected metals in surface soil at concentrations exceeding the SCOs. At least one of these metals was detected at concentrations greater than Restricted Residential Use SCOs in nine of the 15 investigation samples from the Karg parcel. At least one of these metals was detected at concentrations greater than the Unrestricted Use SCOs in each of the 15 on-site investigation samples.

As shown in Figure 6 and Table 2, arsenic, chromium, copper, lead, and mercury were the most frequently detected metals in subsurface soil at concentrations exceeding the

SCOs. At least one of these metals was detected at concentrations greater than Restricted Residential Use SCOs in 10 of the 27 subsurface soil samples collected on the Karg parcel during the RI, generally within the upper 4-5 feet. At least one of these metals was detected at concentrations exceeding the Unrestricted Use SCOs in 17 of the 27 on-site subsurface investigation samples. Cyanide was not detected at a concentration at or greater than the Unrestricted Use SCO of 27 mg/kg at any of the on-site subsurface locations.

As shown in Table 3, two of the 26 soil samples collected from the Karg parcel during the RI contained VOCs at concentrations greater than the corresponding Unrestricted Use SCOs and SVOCs at concentrations greater than the corresponding Restricted-Residential SCOs.

Site-Related Groundwater

Contaminants were detected at levels which exceeded NYSDEC Class GA Groundwater Standards in some groundwater samples from the site, however, these impacts are not necessarily from tannery operations nor widespread.

As shown on Table 4, arsenic was detected in the sample from MW-4 at a concentration greater than the corresponding NYSDEC Class GA Groundwater Standard. Additionally, iron, manganese, and/or sodium were detected in all of the RI groundwater samples at concentrations greater than the corresponding NYSDEC Class GA Groundwater Standards. Iron and manganese are likely naturally occurring while sodium may be attributable to road salt.

The VOC isopropylbenzene was detected in the sample from MW-5 at a concentration greater than the corresponding NYSDEC Class GA Groundwater Standard (Figure 5). None of the other RI groundwater samples contained VOCs at concentrations greater than their corresponding NYSDEC Class GA Groundwater Standards. None of the RI

groundwater samples contained SVOCs at concentrations greater than their corresponding NYSDEC Class GA Groundwater Standards.

Groundwater presently has no exposure point or route, as groundwater in the vicinity of the site is not used as a drinking water source and does not appear to discharge to the Cayadutta Creek at the surface.

All Site-related groundwater monitoring wells were abandoned in October 2013, prior to IRM activities, in accordance with the IRM Work Plan.

1.4 SUMMARY OF REMEDIAL ACTIONS

The site was remediated in accordance with the NYSDEC-approved SAC #C303712, Site #E518022, which was executed on January 14, 2005 and last amended on May 28, 2014 and the IRM Work Plan (ARCADIS, September 2013).

The following is a summary of the Remedial Actions performed at the site:

1. Construction and maintenance of a soil cover system to minimize human exposure to remaining contaminated soil/fill remaining at the site, consisting of a demarcation layer in areas of the site not previously covered by concrete or asphalt overlain by two feet of clean soil. The City's Department of Public Works (DPW) performed the majority of the remedial activities at the site. A demarcation layer consisting of orange construction fencing was placed over the approximately 1.9 acres of the site previously covered by grass and/or soil, as shown on Figure 3. Fill material was received from the Fulton County Department of Solid Waste virgin soil pit and City DPW crews provided equipment and labor for soil transportation and grading (See Table 6 for Fill Material Analytical Results). Additional assistance with soil transportation was provided by the City's Department of Solid Waste (DSW), the City of Gloversville, the Fulton County Highway Department, and the Gloversville-Johnstown Wastewater Facility. A layer of at least two feet of clean general fill (approximately 6,000 cubic yards) was placed above the demarcation layer. Confirmation of soil cover thickness was conducted in

the field using a combination of survey and direct measurement techniques. While not required by NYSDEC, the City at its own cost also placed at least two feet of clean soil (approximately 11,000 cubic yards) over the approximately 3.4 acres of the site covered by concrete and asphalt to fully cover the site and bring all areas of the site to similar grade to facilitate redevelopment. The soil cover extended as close to Cayadutta Creek as practicable and allowable by floodplain development permitting. The approximately 2,000 square foot portion of the site north of East Canal Street was capped with asphalt instead of two feet of clean general fill. As the City's representative, ARCADIS of New York, Inc. (ARCADIS) periodically observed the remedial work, in conjunction with City representatives. Remedial activity at the site began on October 15, 2013. Final grading of the site was completed on June 9, 2014. Final restoration was completed on June 25, 2014.

2. Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to any contamination remaining at the site.

3. Development and implementation of a Site Management Plan for long term management of remaining contamination as required by the Environmental Easement, which includes plans for: (1) Institutional and Engineering Controls, (2) monitoring, (3) operation and maintenance and (4) reporting;

Remedial activities were completed at the site in June 2014.

1.4.1 Removal of Contaminated Materials from the Site

No excavation was performed as part of the remedy.

1.4.2 Site-Related Treatment Systems

No long-term treatment systems were installed as part of the site remedy.

1.4.3 Remaining Contamination

Following the conclusion of IRM activities, metals-impacted soil (generally within the upper four to five feet of subsurface soil) was left in place below either pre-existing concrete and asphalt, or an orange construction fencing demarcation layer and at least two feet of clean soil. Tables 1 through 3 and Figures 5 and 6 summarize the results of all soil samples remaining below the soil cover that meet and exceed the Track 1 (unrestricted) SCOs after completion of IRM.

The City's Department of Public Works (DPW) performed the majority of the remedial activities at the site. A demarcation layer consisting of orange construction fencing was placed over the approximately 1.9 acres of the site previously covered by grass and/or soil, as shown on Figure 3. Fill material was received from the Fulton County Department of Solid Waste virgin soil pit and City DPW crews provided equipment and labor for soil transportation and grading (See Table 6 for Fill Material Analytical Results). Additional assistance with soil transportation was provided by the City's Department of Solid Waste (DSW), the City of Gloversville, the Fulton County Highway Department, and the Gloversville-Johnstown Wastewater Facility. A layer of at least two feet of clean general fill (approximately 6,000 cubic yards) was placed above the demarcation layer. Confirmation of soil cover thickness was conducted in the field using a combination of survey and direct measurement techniques. While not required by NYSDEC, the City at its own cost also placed at least two feet of clean soil (approximately 11,000 cubic yards) over the approximately 3.4 acres of the site covered by concrete and asphalt to fully cover the site and bring all areas of the site to similar grade to facilitate redevelopment. The soil cover extended as close to Cayadutta Creek as practicable and allowable by floodplain development permitting. As the City's representative, ARCADIS of New York, Inc. (ARCADIS) periodically observed the remedial work, in conjunction with City representatives. Remedial activity at the site began on October 15, 2013. Final grading of the site was completed on June 9, 2014. Final restoration was completed on June 25, 2014.

Tables 1-3 and Figures 5 and 6 summarize the results of all soil samples remaining at the site after completion of Remedial Action that meet or exceed the Track 1 (unrestricted) SCOs.

2.0 ENGINEERING AND INSTITUTIONAL CONTROL PLAN

2.1 INTRODUCTION

2.1.1 General

Since remaining contaminated soil exists beneath the site, Engineering Controls and Institutional Controls (EC/ICs) are required to protect human health and the environment. This Engineering and Institutional Control Plan describes the procedures for the implementation and management of all EC/ICs at the site. The EC/IC Plan is one component of the SMP and is subject to revision by NYSDEC.

2.1.2 Purpose

This plan provides:

- A description of all EC/ICs on the site;
- The basic implementation and intended role of each EC/IC;
- A description of the key components of the ICs set forth in the Environmental Easement;
- A description of the features to be evaluated during each required inspection and periodic review;
- A description of plans and procedures to be followed for implementation of EC/ICs, such as the implementation of the Excavation Work Plan for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the site; and
- Any other provisions necessary to identify or establish methods for implementing the EC/ICs required by the site remedy, as determined by the NYSDEC.

2.2 ENGINEERING CONTROLS

2.2.1 Engineering Control Systems

2.2.1.1 Soil Cover

Exposure to remaining contamination in soil/fill at the site is prevented by a soil cover system placed over the site. This cover system is comprised of a minimum of 24 inches of clean soil and asphalt pavement. The Excavation Work Plan that appears in Appendix A outlines the procedures required to be implemented in the event the cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection and maintenance of this cover are provided in the Monitoring Plan included in Section 5 of this SMP.

2.2.2 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered completed when effectiveness monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.6 of NYSDEC DER-10.

2.2.2.1 Composite Cover System

The composite cover system is a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in perpetuity.

2.3 INSTITUTIONAL CONTROLS

A series of Institutional Controls is required by the ROD to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use and development of the site to restricted residential uses only. Adherence to these Institutional Controls on the site is required by the Environmental Easement and will be implemented under this Site Management Plan. These Institutional Controls are:

- Compliance with the Environmental Easement and this SMP by the Grantor and the Grantor's successors and assigns;
- All Engineering Controls must be operated and maintained as specified in this SMP;
- All Engineering Controls on the Controlled Property must be inspected at a frequency and in a manner defined in the SMP.
- Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in this SMP;

Institutional Controls identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement.

The site has a series of Institutional Controls in the form of site restrictions. Adherence to these Institutional Controls is required by the Environmental Easement. Site restrictions that apply to the Controlled Property are:

- The property may only be used for restricted residential use provided that the long-term Engineering and Institutional Controls included in this SMP are employed.
- The property may not be used for a higher level of use, such as unrestricted or residential use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use;
- Vegetable gardens and farming on the property are prohibited;
- The site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and

environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

2.3.1 Excavation Work Plan

The site has been remediated for restricted residential use. Any future intrusive work that will penetrate the soil cover, or encounter or disturb the remaining contamination, including any modifications or repairs to the existing cover system will be performed in compliance with the Excavation Work Plan (EWP) that is attached as Appendix A to this SMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) prepared for the site. A sample HASP is attached as Appendix D to this SMP that is in current compliance with DER-10, and 29 CFR 1910, 29 CFR 1926, and all other applicable Federal, State and local regulations. Based on future changes to State and federal health and safety requirements, and specific methods employed by future contractors, the HASP and CAMP will be updated and re-submitted with the notification provided in Section A-1 of the EWP. Any intrusive construction work will be performed in compliance with the EWP, HASP and CAMP, and will be included in the periodic inspection and certification reports submitted under the Site Management Reporting Plan (See Section 5).

The site owner and associated parties preparing the remedial documents submitted to the State, and parties performing this work, are completely responsible for the safe performance of all intrusive work, the structural integrity of excavations, proper disposal of excavation de-water, control of runoff from open excavations into remaining contamination, and for structures that may be affected by excavations (such as building foundations and bridge footings). The site owner will ensure that site development activities will not interfere with, or otherwise impair or compromise, the engineering controls described in this SMP.

2.4 INSPECTIONS AND NOTIFICATIONS

2.4.1 Inspections

Inspections of all remedial components installed at the site will be conducted at the frequency specified in the SMP Monitoring Plan schedule. A comprehensive site-wide inspection will be conducted annually, regardless of the frequency of the Periodic Review Report. The inspections will determine and document the following:

- Whether Engineering Controls continue to perform as designed;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement;
- Achievement of remedial performance criteria;
- If site records are complete and up to date; and
- Changes, or needed changes, to the remedial or monitoring system;

Inspections will be conducted in accordance with the procedures set forth in the Monitoring Plan of this SMP (Section 3). The reporting requirements are outlined in the Periodic Review Reporting section of this plan (Section 5).

If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs, an inspection of the site will be conducted within 5 days of the event to verify the effectiveness of the EC/ICs implemented at the site by a qualified environmental professional as determined by NYSDEC.

2.4.2 Notifications

Notifications will be submitted by the property owner to the NYSDEC as needed for the following reasons:

- 60-day advance notice of any proposed changes in site use that are required under the terms of the SAC.
- 7-day advance notice of any proposed ground-intrusive activities pursuant to the Excavation Work Plan.
- Notice within 48-hours of any damage or defect to the foundation, structures or engineering control that reduces or has the potential to reduce the effectiveness of

an Engineering Control and likewise any action to be taken to mitigate the damage or defect.

- Verbal notice by noon of the following day of any emergency, such as a fire, flood, or earthquake that reduces or has the potential to reduce the effectiveness of Engineering Controls in place at the site, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action shall be submitted to the NYSDEC within 45 days and shall describe and document actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the site or the responsibility for implementing this SMP will include the following notifications:

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser has been provided with a copy of the SAC, and all approved work plans and reports, including this SMP.
- Within 15 days after the transfer of all or part of the site, the new owner's name, contact representative, and contact information will be confirmed in writing.

2.5 CONTINGENCY PLAN

Emergencies may include injury to personnel, fire or explosion, environmental release, or serious weather conditions.

2.5.1 Emergency Telephone Numbers

In the event of any environmentally related situation or unplanned occurrence requiring assistance the Owner or Owner's representative(s) should contact the appropriate party from the contact list below. For emergencies, appropriate emergency response personnel should be contacted. Prompt contact should also be made to Johnstown's City Engineer. These emergency contact lists must be maintained in an easily accessible location at the site.

Table 7: Emergency Contact Numbers

Medical, Fire, and Police:	911
One Call Center:	(800) 272-4480 (3 day notice required for utility markout)
Poison Control Center:	(800) 222-1222
Pollution Toxic Chemical Oil Spills:	(800) 424-8802
NYSDEC Spills Hotline	(800) 457-7362

Table 8: Contact Numbers

Johnstown City Engineer	518-736-4014

* Note: Contact numbers subject to change and should be updated as necessary

2.5.2 Map and Directions to Nearest Health Facility

Site Location: Former Karg Brothers Tannery

Nearest Hospital Name: **Nathan Littauer Hospital**

Hospital Location: 90 E State St Gloversville, NY 12078

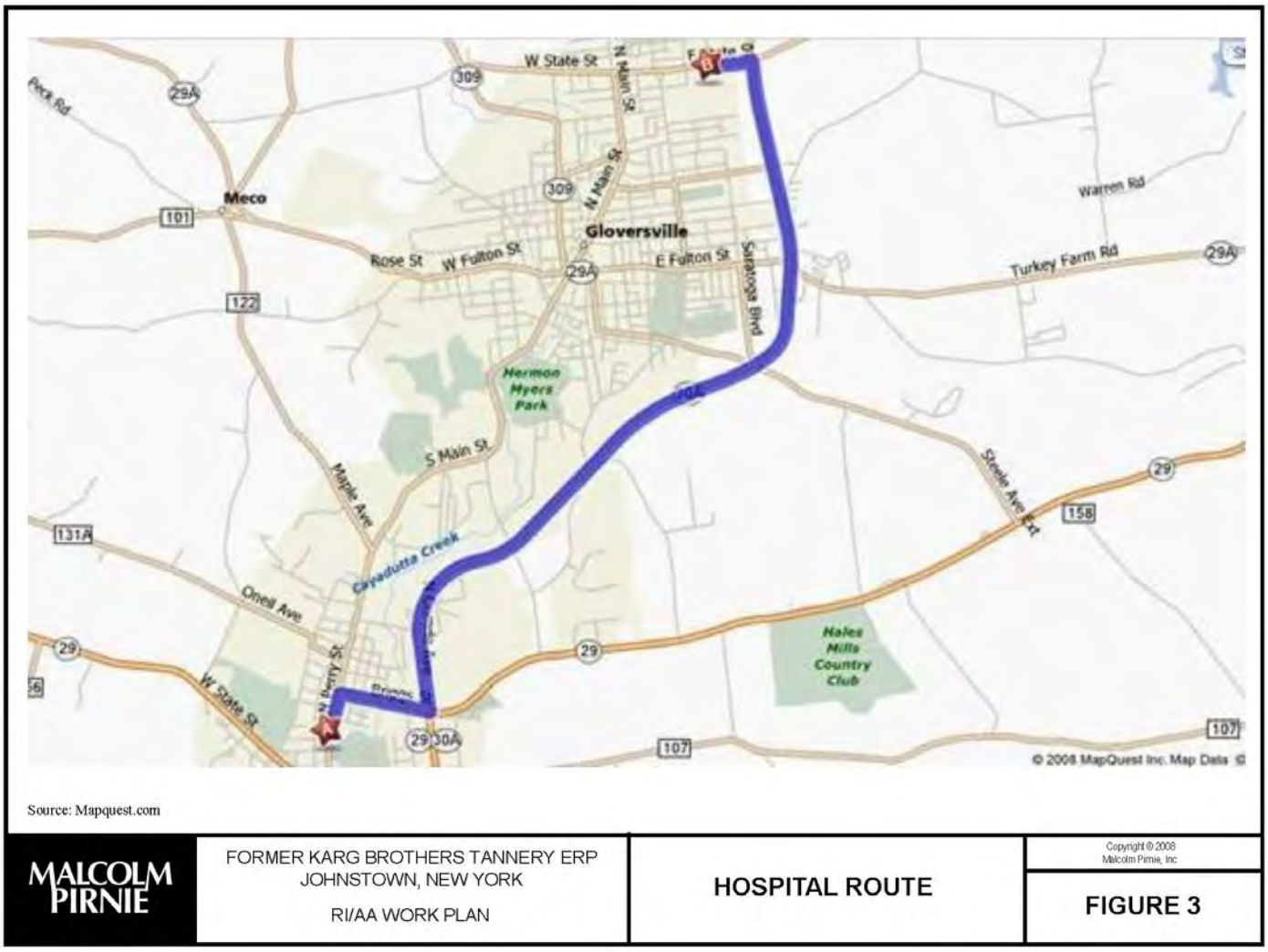
Hospital Telephone: 518-725-8621

Directions to the Hospital:

1. Start out going NORTH on N PERRY ST. 0.2 mi
2. Turn RIGHT onto BRIGGS ST. 0.5 mi
3. Turn LEFT onto N COMRIE AVE/ NY-30A/ MAYOR HARVEY
4. W MANSFIELD HWY. Continue to follow NY-30A. 4.8 mi
5. Turn LEFT onto E STATE ST. 0.2 mi
6. End at Nathan Littauer Hospital 90 E State St Gloversville, NY 12078

Estimated Time: 9 minutes Estimated Distance: 5.79 miles

Map Showing Route from the site to the Hospital:



Source: Mapquest.com

MALCOLM PIRNIE	FORMER KARG BROTHERS TANNERY ERP JOHNSTOWN, NEW YORK RI/AA WORK PLAN	HOSPITAL ROUTE	Copyright © 2008 Malcolm Pirnie, Inc. FIGURE 3

2.5.3 Response Procedures

As appropriate, the fire department and other emergency response group will be notified immediately by telephone of the emergency. The emergency telephone number list is found at the beginning of this Contingency Plan (Table 7).

3.0 SITE MONITORING PLAN

3.1 INTRODUCTION

3.1.1 General

The Monitoring Plan describes the measures for evaluating the performance and effectiveness of the remedy to reduce or mitigate contamination at the site, the soil cover system, and all affected site media identified below. Monitoring of other Engineering Controls is described in Chapter 4, Operation, Monitoring and Maintenance Plan. This Monitoring Plan may only be revised with the approval of NYSDEC.

3.2 COVER SYSTEM MONITORING

The soil cover will be inspected on an annual basis to identify any disturbances or erosion.

3.4 SITE-WIDE INSPECTION

Site-wide inspections will be performed on a regular schedule at a minimum of once a year. During these inspections, an inspection form will be completed (Appendix E). The form will compile sufficient information to assess the following:

- Compliance with all ICs, including site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General site conditions at the time of the inspection;
- The site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection;
- Compliance with permits and schedules included in the Operation and Maintenance Plan; and
- Confirm that site records are up to date.

3.6 INSPECTION REPORTING REQUIREMENTS

Forms and any other information generated during regular inspections will be kept on file. All forms, and other relevant reporting formats used during the inspection events, will be (1) subject to approval by NYSDEC and (2) submitted at the time of the Periodic Review Report, as specified in the Reporting Plan of this SMP.

All inspection results will be reported to NYSDEC on a periodic basis in the Periodic Review Report. A letter report will also be prepared [if required by NYSDEC], subsequent to each sampling event. The report (or letter) will include, at a minimum:

- Date of event;
- Personnel conducting inspection;
- Description of the activities performed;
- Copies of all field forms completed (e.g., Site Inspection Form.); and
- Any observations, conclusions, or recommendations.

Data will be reported in hard copy or digital format as determined by NYSDEC. A summary of the inspection program deliverables are summarized in Table 9 below.

Table 9: Schedule of Monitoring/Inspection Reports

Task	Reporting Frequency*
Site-Wide Inspection	Annual

* The frequency of events will be conducted as specified until otherwise approved by NYSDEC

4.0 OPERATION AND MAINTENANCE PLAN

4.1 INTRODUCTION

The site remedy does not rely on any mechanical systems, such as sub-slab depressurization systems or air sparge/ soil vapor extraction systems to protect public health and the environment. Therefore, the operation and maintenance of such components is not included in this SMP.

5. INSPECTIONS, REPORTING AND CERTIFICATIONS

5.1 SITE INSPECTIONS

5.1.1 Inspection Frequency

All inspections will be conducted at the frequency specified in the schedules provided in Section 3 Monitoring Plan. At a minimum, a site-wide inspection will be conducted annually.

5.1.2 Inspection Forms, Sampling Data, and Maintenance Reports

All inspections will be recorded on the appropriate forms which are contained in Appendix E (Site-Wide Inspection). Additionally, a general site-wide inspection form will be completed during the site-wide inspection (see Appendix [x]). These forms are subject to NYSDEC revision.

All applicable inspection forms and other records generated for the site during the reporting period will be provided in electronic format in the Periodic Review Report.

5.1.3 Evaluation of Records and Reporting

The results of the inspection will be evaluated as part of the EC/IC certification to confirm that the:

- EC/ICs are in place, are performing properly, and remain effective;

- The Monitoring Plan is being implemented; and
- The site remedy continues to be protective of public health and the environment and is performing as designed in the ROD.

5.2 CERTIFICATION OF [ENGINEERING AND] INSTITUTIONAL CONTROLS

After the last inspection of the reporting period, the City of Johnstown Engineer will prepare the following certification:

For each institutional or engineering control identified for the site, I certify that all of the following statements are true:

- The inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;
- The institutional control and/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any site management plan for this control;
- Access to the site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- If a financial assurance mechanism is required under the oversight document for the site, the mechanism remains valid and sufficient for the intended purpose under the document;
- Use of the site is compliant with the environmental easement;
- The engineering control systems are performing as designed and are effective;
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program; and

- The information presented in this report is accurate and complete.
- I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, *[name]*, City of Johnstown Engineer, of the City of Johnstown, am certifying as Owner for the site.

The signed certification will be included in the Periodic Review Report described below.

5.3 PERIODIC REVIEW REPORT

A Periodic Review Report will be submitted to the Department, beginning fifteen months after the Certificate of Completion is issued. In the event that the site is subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the site described in Appendix B (Metes and Bounds). The report will be prepared in accordance with NYSDEC DER-10 and submitted within 30 days of the end of each certification period. The report will include:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the site;
- Results of the required annual site inspections and severe condition inspections, if applicable;
- All applicable inspection forms and other records generated for the site during the reporting period in electronic format;
- A summary of any discharge monitoring data and/or information generated during the reporting period with comments and conclusions;
- A site evaluation, which includes the following:
    - The compliance of the remedy with the requirements of the site-specific ROD;
    - Any new conclusions or observations regarding site contamination based on inspections;
    - Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan; and

- The overall performance and effectiveness of the remedy.

The Periodic Review Report will be submitted, in hard-copy format, to the NYSDEC Regional Office in which the site is located, and in electronic format to NYSDEC Regional Office and the NYSDOH Bureau of Environmental Exposure Investigation.

5.4 CORRECTIVE MEASURES PLAN

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an institutional or engineering control, a corrective measures plan will be submitted to the NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the corrective measures plan until it is approved by the NYSDEC.

TABLE 1
SUMMARY OF ON-SITE SURFACE SOIL SAMPLING RESULTS
METALS + CYANIDE
REMEDIAL INVESTIGATION
FORMER KARG BROTHERS TANNERY
ENVIRONMENTAL RESTORATION PROGRAM
JOHNSTOWN, NEW YORK

Sample ID	Part 375 Unrestricted Use Soil Cleanup Objective	Part 375 Restricted Residential Use Soil Cleanup Objective	K-00-SS-08		K-SS-X1 (SS-08 Dup)		K-00-SS-10		K-00-SS-14		K-00-SS-27	
Sample Depth (ft)			Surface		Surface		Surface		Surface		Surface	
Sampling Date			9/15/2010		9/15/2010		9/15/2010		9/15/2010		9/15/2010	
Matrix			SOIL		SOIL		SOIL		SOIL		SOIL	
Method			XRF	LAB	XRF	LAB	XRF	LAB	XRF	LAB	XRF	LAB
Units	mg/kg	mg/kg	ppm	mg/Kg	ppm	mg/Kg	ppm	mg/Kg	ppm	mg/Kg	ppm	mg/Kg
METALS												
Aluminum				3,890		4,100		2,550		8,350		2,130
Antimony				3.08 U		2.79 U		2.11 U		2.28 U		2.79 U
Arsenic	13	16	29.59	19.5		20.3		12.9		5.65		3.02
Barium	350	400		43.8		44.9		39.8		60.3		23.6
Beryllium	7.2	72		0.34 J		0.36		0.35		0.69		0.25 J
Cadmium	2.5	4.3		0.37 U		0.34 U		0.25 U		0.27 U		0.34 U
Calcium				17,400		17,300		76,100		64,700		68,900
Chromium	30	180		165 J		171 J		39.8 J		39.4 J		241 J
Cobalt				3.16		3.46	2.45	3.56		5.88		2.4
Copper	50	270		24.7		26	1.5	12.3		14.6		12.5
Cyanide	27	27		0.659 U		0.645 U		0.645 U		0.642 U		0.609 U
Iron			17,153	10,100		10,400	12,023	9,620	20,889	14,800	9,763	11,600
Lead	63	400	61	70		78	48	28	19	26	60	50
Magnesium				4,900		4,810		25,600		4,720		19,800
Manganese	1,600	2,000	436	229		239	308	214	308	471	423	425
Mercury	0.18	0.81		0.299		0.351	0.2	0.085		0.062		0.047
Nickel	30	310		8.2		9.03	1.83	10.2		10.5		7.61
Potassium				496		530		464		1080		459
Selenium	3.9	180		1.45 N		1.39 N		0.86 N		1.12 N		0.95 JN
Silver	2	180		1.03		1.09		0.85		1.31		1.04
Sodium				127		129		139		284		176
Thallium				2.46 U		2.23 U		1.69 U		1.82 U		2.23 U
Vanadium				18.3		18.5		11.5		26.6		11.7
Zinc	109	10,000	121	104		105	86	43	87	67	299	216

Notes

Highlighted cells exceed corresponding Soil Cleanup Objective (SCO)

NS - Not sampled

U - The compound was not detected at the indicated concentration.

J - The concentration given is an estimated value.

N - Spike sample recovery is not within control limits.

* - Duplicate not within control limits.

TABLE 1
SUMMARY OF ON-SITE SURFACE SOIL SAMPLING RESULTS
METALS + CYANIDE
REMEDIAL INVESTIGATION
FORMER KARG BROTHERS TANNERY
ENVIRONMENTAL RESTORATION PROGRAM
JOHNSTOWN, NEW YORK

Sample ID	Part 375 Unrestricted Use Soil Cleanup Objective	Part 375 Restricted Residential Use Soil Cleanup Objective	K-00-SS-34		K-00-SS-38		K-00-SS-40		K-00-SS-42		K-00-SS-48	
Sample Depth (ft)			Surface		Surface		Surface		Surface		Surface	
Sampling Date			9/15/2010		9/15/2010		9/15/2010		9/15/2010		9/15/2010	
Matrix			SOIL		SOIL		SOIL		SOIL		SOIL	
Method			XRF	LAB	XRF	LAB	XRF	LAB	XRF	LAB	XRF	LAB
Units	mg/kg	mg/kg	ppm	mg/Kg	ppm	mg/Kg	ppm	mg/Kg	ppm	mg/Kg	ppm	mg/Kg
METALS												
Aluminum				3,660		1,970		5,570		6,560		2,480
Antimony				3.74 U		1.64 U		3.14 U		1.6 J		3.89 U
Arsenic	13	16	56.52	14		3.36	88.16	68.6		20.3		16.7
Barium	350	400		89.3		23.3		98.8		143		43.5
Beryllium	7.2	72		0.31 J		0.23		0.45		0.64		0.37 J
Cadmium	2.5	4.3		0.18 J		0.31		0.38 U		0.49 U		0.47 U
Calcium				61,900		59,400		12,000		64,200		142,000
Chromium	30	180		166 J		87.7 J		229 J		236 J		160 J
Cobalt				2.29		2.6		4.01		4.92		9.75
Copper	50	270	56.74	44.5		15.3		29.9		38		24.5
Cyanide	27	27		0.756 U		0.646 U		0.64 U		1.04 U		0.847 U
Iron			12,279	10,800	13,350	8,560	16,571	11,200	16,158	27,500	4,929	10,900
Lead	63	400	650	500	56	48	263	269	127	210	35	43
Magnesium				16,300		27,100		3,130		9,830		71,500
Manganese	1,600	2,000	180	202	248	142	317	198	896	1,550	152	434
Mercury	0.18	0.81		0.304		0.215		0.47		0.297		0.028
Nickel	30	310		12.9		19.4		9.79		16.3		17.4
Potassium				860		348		854		1140		726
Selenium	3.9	180		0.79 JN		0.88 N		2.13 N		2.77 N		1.2 JN
Silver	2	180		1.17		0.83		1.28		2.61		0.95
Sodium				244		166		204		373		323
Thallium				2.99 U		1.31 U		2.51 U		3.24 U		3.11 U
Vanadium				35.9		44.3		22.4		40.1		49.7
Zinc	109	10,000	323	293	213	125	644	557	176	298	306	345

Notes

Highlighted cells exceed corresponding Soil Cleanup Objective (SCO)

NS - Not sampled

U - The compound was not detected at the indicated concentration.

J - The concentration given is an estimated value.

N - Spike sample recovery is not within control limits.

* - Duplicate not within control limits.

TABLE 1
SUMMARY OF ON-SITE SURFACE SOIL SAMPLING RESULTS
METALS + CYANIDE
REMEDIAL INVESTIGATION
FORMER KARG BROTHERS TANNERY
ENVIRONMENTAL RESTORATION PROGRAM
JOHNSTOWN, NEW YORK

Sample ID	Part 375 Unrestricted Use Soil Cleanup Objective	Part 375 Restricted Residential Use Soil Cleanup Objective	K-00-SS-56		K-00-SS-65		K-00-SS-73		K-00-SS-80		K-00-SS-87		K-00-SS-93	
Sample Depth (ft)			Surface		Surface		Surface		Surface		Surface		Surface	
Sampling Date			9/15/2010		9/15/2010		9/15/2010		9/15/2010		9/15/2010		9/15/2010	
Matrix			SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
Method			XRF	LAB	XRF	LAB	XRF	LAB	XRF	LAB	XRF	LAB	XRF	LAB
Units	mg/kg	mg/kg	ppm	mg/Kg	ppm	mg/Kg	ppm	mg/Kg	ppm	mg/Kg	ppm	mg/Kg	ppm	mg/Kg
METALS														
Aluminum				5,020		4,660		3,200		3,480		1,510		3,390
Antimony				2.19 U		3.2 U		5.69		2.3 U		2.44 U		1.59 U
Arsenic	13	16	50.42	14.4		16.1	47.95	5.96		6.93		1.74		1.32
Barium	350	400		247		42.6		81.3		104		29		17
Beryllium	7.2	72		0.6		0.35 J		0.39		0.34		0.3		0.29
Cadmium	2.5	4.3		0.26 U		0.38 U		1.14		0.28 U		0.29 U		0.19 U
Calcium				39,300		16,800		93,300		42,900		70,000		14,300
Chromium	30	180		707 J		147 J		113 J		310 J		18.9 J		31 J
Cobalt				6.15		4.25	250.17	5.1		2.87		2.43		3.16
Copper	50	270	43.74	89.8		24.7	98.55	53.1		34.9		9.92		8.7
Cyanide	27	27		0.64 U		0.742 U		0.581 U		0.695 U		1.55 U		0.619 U
Iron			43,453	36,700	18,471	11,700	20,871	15,300	15,671	12,300	12,535	14,300	15,265	8,810
Lead	63	400	753	1,520	99	106	177	192	492	488	17	15		9
Magnesium				6,810		4,710		33,700		9,730		27,800		3,340
Manganese	1,600	2,000	404	353	318	236	295	231	262	209	214	189	287	173
Mercury	0.18	0.81		2.3 D		0.439		1.1 D		0.232		0.034		0.023
Nickel	30	310		23.5		12.5	86.97	56.8		14.5		7.9		7.59
Potassium				609		901		535		617		382		399
Selenium	3.9	180		2.32 N		1.64 N		1.01 JN		1.08 N		0.93 JN		0.61 JN
Silver	2	180		3.66		1.18		2.43		1.47		1.27		0.77
Sodium				221		150		299		197		188		92.2
Thallium				1.75 U		2.56 U		1.29 J		1.84 U		1.95 U		1.28 U
Vanadium				38.7		29		169		39.6		13.4		15.6
Zinc	109	10,000	723	817	200	156	337	246	214	175	299	142	54	45

Notes

Highlighted cells exceed corresponding Soil Cleanup Objective (SCO)

NS - Not sampled

U - The compound was not detected at the indicated concentration.

J - The concentration given is an estimated value.

N - Spike sample recovery is not within control limits.

* - Duplicate not within control limits.

TABLE 2
SUMMARY OF ON-SITE SOIL SAMPLING RESULTS (Metals + Cyanide)
REMEDIAL INVESTIGATION
FORMER KARG BROTHERS TANNERY
ENVIRONMENTAL RESTORATION PROGRAM
JOHNSTOWN, NEW YORK

Boring ID	Part 375	Part 375	K-00-SB-1		K-00-SB-2		K-00-SB-3		K-00-SB-3		K-00-SB-4		K-00-SB-5		K-00-SB-6	
Sample Depth (ft)	Unrestricted Use	Restricted	3-4		0-1		0-1		3-4		0-1		4-5		4-8	
Sampling Date	Soil Cleanup	Residential Use	7/20/2011		7/20/2011		7/20/2011		7/20/2011		7/20/2011		7/20/2011		7/20/2011	
Matrix	Objective	Soil Cleanup	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
Units	mg/kg	Objective mg/kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
METALS																
Aluminum			15,500		2,270		3,830		14,700		2,550		5,670		3,880	
Antimony			2.04	J	2.27	UJ	2.35	UJ	3.23	UJ	1.85	UJ	0.488	J	2.38	UJ
Arsenic	13	16	361		7.96		2.25		26.3		2.77		52.3		2.11	
Barium	350	400	213		14.9		17.1		170		17.2		70.5		39.7	
Beryllium	7.2	72	0.971		0.164	J	0.273	J	0.848		0.216	J	0.383		0.614	
Cadmium	2.5	4.3	1.53		0.272	U	0.089	J	0.565		0.116	J	0.225	J	0.136	J
Calcium			46,900	J	15,200	J	16,600	J	13,600	J	51,600	J	21,400	J	29,200	J
Chromium	30	180	1520	NJ	6.39	NJ	31.7	NJ	34.1	NJ	106	NJ	116	NJ	59.1	NJ
Cobalt			9.26		2.04		3.98		4.87		3.57		3.68		4.59	
Copper	50	270	125	J	3.94	J	8.35	J	23.9	J	566	J	25.3		14.4	J
Cyanide	27	27	0.414	U	0.281	U	0.65		0.365	U	0.261	U	0.285	U	1.9	
Iron			21,900		6,050		9,810		12,300		15,900		9,340		14,200	
Lead	63	400	388		1.47		4.96		90.9		5.31		55		6.44	
Magnesium			4,320		4,050		4,070		4,460		19,000		6,200		3,080	
Manganese	1,600	2,000	286	J	87	J	189	J	164	J	233	J	115	J	103	J
Mercury	0.18	0.81	8.4	D	0.005	J	0.017		0.487		0.008	J	0.642	D	0.031	
Nickel	30	310	20.6	J	4.08	J	7.76	J	14.2	J	8.61	J	7.03	J	12	J
Potassium			1380		296		472		939		602		400		1160	
Selenium	3.9	180	1.25	J	0.906	U	0.939	U	1.29	U	0.741	U	0.863	U	0.953	U
Silver	2	180	2.2		0.453	U	0.47	U	0.646	U	0.371	U	0.431	U	0.477	U
Sodium			706	J	183	J	162	J	254	J	212	J	455	J	333	J
Thallium			1.21	J	1.81	U	1.88	U	2.58	U	1.48	U	1.73	U	1.91	U
Vanadium			32.9	J	8.95	J	13.3	J	17.4	J	12.8	J	15.8	J	17.4	J
Zinc	109	10,000	809	N	16	N	35	N	137	N	42	N	89	N	38	N

Notes

Highlighted cells exceed corresponding Soil Cleanup Objective (SCO)

NS - Not sampled

U - The compound was not detected at the indicated concentration.

J - The concentration given is an estimated value.

N - Spike sample recovery is not within control limits.

* For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

TABLE 2
SUMMARY OF ON-SITE SOIL SAMPLING RESULTS (Metals ·
REMEDIAL INVESTIGATION
FORMER KARG BROTHERS TANNERY
ENVIRONMENTAL RESTORATION PROGRAM
JOHNSTOWN, NEW YORK

Boring ID	Part 375	Part 375	K-00-SB-7		K-00-SB-8		K-0-SB-9		K-00-SB-10		K-00-SB-11		K-00-SB-12		K-00-SB-13	
Sample Depth (ft)	Unrestricted Use	Restricted	3-4		0.5-2.5		2-3		1-3		2-4		3-4		3-5	
Sampling Date	Soil Cleanup	Residential Use	7/20/2011		7/20/2011		7/20/2011		7/20/2011		7/20/2011		7/20/2011		7/20/2011	
Matrix	Objective	Soil Cleanup	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
Units	mg/kg	Objective mg/kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg	
METALS																
Aluminum			4,410		3,510		8,800		8,220		8,270		8,910		10,900	
Antimony			2.59	UJ	4.11	J	6.64	J	2.14	UJ	3.13	UJ	3.21	UJ	2.58	UJ
Arsenic	13	16	16.6		12.6		14.8		60.6		7.37		13.5		3.88	
Barium	350	400	53.1		83.4		75		78.5		77.1		221		60.8	
Beryllium	7.2	72	0.375		0.392		0.548		0.489		0.439		0.756		0.547	
Cadmium	2.5	4.3	0.311	U	0.797		0.379		0.394		0.196	J	0.138	J	0.174	J
Calcium			6,460	J	45,400	J	7,660	J	6,260	J	9,360	J	8,320	J	4,320	J
Chromium	30	180	160	NJ	80.1	NJ	43	NJ	126	NJ	29.4	NJ	40.2	NJ	11.4	NJ
Cobalt			6.28		4.98		6.73		4.37		4.75		6.91		8	
Copper	50	270	18.1	J	78.9	J	13.7	J	19.6	J	35.3	J	97	J	11.7	J
Cyanide	27	27	0.29	U	0.278	U	0.301	U	0.294	U	0.332	U	0.344	U	0.309	U
Iron			10,900		21,200		20,200		12,000		12,800		16,700		16,600	
Lead	63	400	51.4		329		45.5		107		118		354		33.7	
Magnesium			1,740		10,300		1,550		1,860		1,430		1,450		2,570	
Manganese	1,600	2,000	59	J	324	J	208	J	184	J	70	J	225	J	224	J
Mercury	0.18	0.81	0.046		0.178		0.092		0.559	D	0.728	D	4.86	D	0.229	
Nickel	30	310	11.7	J	38	J	10.2	J	9.89	J	12	J	12.7	J	10.5	J
Potassium			363		484		913		611		745		948		1010	
Selenium	3.9	180	0.586	J	1.03	U	1.16	U	0.858	U	1.25	U	0.669	J	1.03	U
Silver	2	180	0.519	U	0.514	U	0.579	U	0.429	U	0.626	U	0.643	U	0.515	U
Sodium			220	J	330	J	543	J	191	J	430	J	1470	J	371	J
Thallium			2.07	U	2.06	U	2.31	U	1.72	U	2.51	U	2.57	U	2.06	U
Vanadium			11.6	J	20.7	J	22.6	J	17.3	J	21.9	J	27	J	25.2	J
Zinc	109	10,000	61	N	113	N	67	N	134	N	110	N	141	N	56	N

Notes

Highlighted cells exceed corresponding Soil Cleanup Objective (SCO)

NS - Not sampled

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J - The concentration given is an estimated value.

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* For dual column analysis, the lowest quantitated concentration is being reporte

TABLE 2
SUMMARY OF ON-SITE SOIL SAMPLING RESULTS (Metals ·
REMEDIAL INVESTIGATION
FORMER KARG BROTHERS TANNERY
ENVIRONMENTAL RESTORATION PROGRAM
JOHNSTOWN, NEW YORK

Boring ID	Part 375	Part 375	K-00-SB-14		K-00-SB-15			K-00-SB-16		K-00-SB-17		K-00-SB-18		K-00-SB-19	
Sample Depth (ft)	Unrestricted Use	Restricted	1-2		5-7		K-00-SB-X	0-1		0-2		0-2		2-3	
Sampling Date	Soil Cleanup	Residential Use	7/20/2011		7/20/2011		7/20/2011	7/20/2011		7/20/2011		7/20/2011		7/21/2011	
Matrix	Objective	Soil Cleanup	SOIL		SOIL		SOIL	SOIL		SOIL		SOIL		SOIL	
Units	mg/kg	Objective mg/kg	mg/Kg		mg/Kg		mg/Kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg	
METALS															
Aluminum			9,460		18,900		21,700	2,380		3,110		12,100		9,700	
Antimony			3.05	UJ	3.13	UJ	2.81	UJ	1.98	UJ	2.64	UJ	2.19	UJ	2.56	UJ
Arsenic	13	16	7.16		4.83		6.13	3.38		11.6		2.73		39.6	
Barium	350	400	138		129		149	19.8		42.3		49.3		102	
Beryllium	7.2	72	0.567		1.15		1.32	0.281		0.381		0.654		0.673	N
Cadmium	2.5	4.3	0.218	J	0.151	J	0.142	J	0.082	J	0.104	J	0.1	J	0.747	
Calcium			52,300	J	29,700	J	15,000	J	72,700	J	103,000	J	5,430	J	13,500	
Chromium	30	180	18.2	NJ	20.4	NJ	21.6	NJ	9.67	NJ	52.2	NJ	12.9	NJ	95.3	NJ*
Cobalt			5.71		16		18	3.19		4.66		9.09		2.85	
Copper	50	270	27.3	J	22.2	J	23.6	J	8.79	J	12.6	J	9.47	J	18.4	NJ*
Cyanide	27	27	0.118	J	0.103	J	0.111	J	0.119	J	0.148	J	0.14	J	3	
Iron			13,100		30,900		35,000	7,480		10,300		21,100		7,340	J
Lead	63	400	1,920		9.77		10.6	8.14		10.9		7.4		101.0	N*
Magnesium			10,900		13,800		9,640	13,700		30,000		2,880		4,840	
Manganese	1,600	2,000	203	J	510	J	475	J	253	J	289	J	388	J	239	J
Mercury	0.18	0.81	0.093		0.01	J	0.012	J	0.024		0.015		0.018		0.29	
Nickel	30	310	9.76	J	23.6	J	27.6	7.87	J	11.2	J	10.8	J	5.46	
Potassium			1030		3090		3910	670		898		1230		301	
Selenium	3.9	180	1.22	U	1.25	U	1.13	U	0.792	U	1.06	U	0.875	U	0.496	J
Silver	2	180	0.61	U	0.626	U	0.563	U	0.396	U	0.528	U	0.437	U	0.512	U
Sodium			560	J	718	J	739	J	190	J	374	J	452	J	296	J
Thallium			2.44	U	2.5	U	2.25	U	1.58	U	2.11	U	1.75	U	0.292	J
Vanadium			21	J	41	J	41.7	9.33	J	9.3	J	34.6	J	10.7	NJ*
Zinc	109	10,000	193	N	79	N	96	N	30	N	40	N	49	N	139	J

Notes

Highlighted cells exceed corresponding Soil Cleanup Objective (SCO)

NS - Not sampled

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TABLE 2
SUMMARY OF ON-SITE SOIL SAMPLING RESULTS (Metals ·
REMEDIAL INVESTIGATION
FORMER KARG BROTHERS TANNERY
ENVIRONMENTAL RESTORATION PROGRAM
JOHNSTOWN, NEW YORK

Boring ID	Part 375	Part 375	K-00-SB-20		K-00-SB-21		K-00-SB-22		K-00-SB-23								K-00-SB-24	
Sample Depth (ft)	Unrestricted Use	Restricted	1-2		3-3.5		0-1		4-5		11-12		K-00-X-2		2-3			
Sampling Date	Soil Cleanup	Residential Use	7/21/2011		7/21/2011		7/21/2011		7/21/2011		7/21/2011		7/21/2011		7/21/2011			
Matrix	Objective	Soil Cleanup	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL			
Units	mg/kg	Objective mg/kg	mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg		mg/Kg			
METALS																		
Aluminum			2,740		3,310		4,070		4,560		2,150		2,200		3,710			
Antimony			1.96	UJ	0.763	J	2.14	UJ	1.86	UJ	2	UJ	2.1	UJ	0.486	J		
Arsenic	13	16	8.05		21.6		6.45		1.76		1.22		0.94		5.64			
Barium	350	400	25.8		139		42.2		29		16.7		16.9		41.9			
Beryllium	7.2	72	0.192	JN	0.269	N	0.355	N	0.154	JN	0.182	JN	0.19	JN	0.347	N		
Cadmium	2.5	4.3	0.164	J	0.58		0.123	J	0.117	J	0.24	U	0.251	U	0.619			
Calcium			30,200		38,600		28,600		6,240		28,900		33,100		53,200			
Chromium	30	180	17.2	NJ*	140	N*	11.4	NJ*	19.5	NJ*	3.81	NJ*	4.34	NJ*	29.4	NJ*		
Cobalt			3.96		5.61		4.43		4.78		2.64		2.69		5.64			
Copper	50	270	7.55	NJ*	69.1	NJ*	9.32	NJ*	10.1	NJ*	3.76	NJ*	3.73	NJ*	13.1	NJ*		
Cyanide	27	27	0.439		0.288	U	0.275	U	0.257	U	1.3		0.287	U	0.288	U		
Iron			8,730	J	10,400	J	11,000	J	9,870	J	7,000	J	7,370	J	8,680	J		
Lead	63	400	12.1	NJ*	102.0	N*	19.6	N*	17.5	N*	1.6	N*	1.9	N*	78.3	N*		
Magnesium			8,420		5,300		2,550		3,160		4,320		6,890		3,900			
Manganese	1,600	2,000	165	J	122	J	156	J	102	J	90	J	103	J	146	J		
Mercury	0.18	0.81	0.046		0.281		0.043		0.121		0.01	U	0.011	U	0.168			
Nickel	30	310	6.52		9.81		12.2		7.71		3.99		4.13		9.47			
Potassium			617		326		508		1180		363		373		560			
Selenium	3.9	180	0.783	U	0.769	U	0.856	U	0.746	U	0.8	U	0.838	U	0.848	U		
Silver	2	180	0.392	U	0.384	U	0.428	U	0.373	U	0.4	U	0.419	U	0.424	U		
Sodium			220	J	258	J	266	J	220	J	250	J	291	J	291	J		
Thallium			1.57	U	1.54	U	1.71	U	1.49	U	1.6	U	1.68	U	1.7	U		
Vanadium			10.7	NJ*	11.9	NJ*	24.6	NJ*	19.4	NJ*	12	NJ*	12.7	NJ*	12.4	NJ*		
Zinc	109	10,000	55	J	171	J	39	J	56	J	15	J	16	J	43	J		

Notes

Highlighted cells exceed corresponding Soil Cleanup Objective (SCO)

NS - Not sampled

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TABLE 3
SUMMARY OF ON-SITE SOIL SAMPLING RESULTS (VOCs & SVOCs)
REMEDIAL INVESTIGATION
FORMER KARG BROTHERS TANNERY
ENVIRONMENTAL RESTORATION PROGRAM
JOHNSTOWN, NEW YORK

Boring ID	Part 375	Part 375	K-00-SB-1	K-00-SB-2	K-00-SB-3	K-00-SB-3	K-00-SB-4	K-00-SB-5	K-00-SB-6
Sample Depth (feet)	Unrestricted Use Soil Cleanup Objective	Restricted Residential Use Soil Cleanup Objective	3-4	0-1	0-1	3-4	0-1	4-5	4-8
Sampling Date			7/20/2011	7/20/2011	7/20/2011	7/20/2011	7/20/2011	7/20/2011	7/20/2011
Matrix			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
VOCs									
Acetone	50	100,000	41 U	28 U	27 U	36 U	26 U	28 U	31 U
Carbon Disulfide			8.3 U	5.6 U	5.4 U	7.3 U	5.2 U	5.6 U	14
Chlorobenzene	1,100	100,000	8.3 U	5.6 U	5.4 U	7.3 U	5.2 U	5.6 U	6.2 U
Cyclohexane			8.3 U	5.6 U	5.4 U	7.3 U	5.2 U	5.6 U	6.2 U
Ethylbenzene	1,000	41,000	8.3 U	5.6 U	5.4 U	7.3 U	5.2 U	5.6 U	6.2 U
Isopropylbenzene			8.3 UJ	5.6 U	5.4 U	7.3 U	5.2 UJ	5.6 U	6.2 UJ
Methylcyclohexane			8 U	6 U	5 U	7 U	5 U	6 U	6 U
Methylene Chloride	50	100,000	24	18 BU	5.4 U	13	8.8	9.3	17
Toluene	700	100,000	8.3 U	5.6 U	5.4 U	7.3 U	5.2 U	5.6 U	6.2 U
Total TICs									
SVOCs									
Acenaphthene	20,000	100,000	550 U	370 U	350 U	480 U	6,900 U	1,900 U	410 U
Acenaphthylene	100,000	100,000	110 J	370 U	350 U	480 U	6,900 U	1,900 U	410 U
Anthracene	100,000	100,000	95 J	370 U	350 U	480 U	6,900 U	1,900 U	410 U
Benzo(a)anthracene	1,000	1,000	390 J	370 U	89 J	83 J	6,900 U	1,900 U	410 U
Benzo(a)pyrene	1,000	1,000	500 J	370 U	78 J	83 J	6,900 U	1,900 U	410 U
Benzo(b)fluoranthene	1,000	1,000	490 J	370 U	110 J	94 J	6,900 U	1,900 U	410 U
Benzo(g,h,i)perylene	100,000	100,000	350 J	370 U	350 U	480 U	6,900 U	1,900 U	410 U
Benzo(k)fluoranthene	800	3,900	200 J	370 U	350 U	480 U	6,900 U	1,900 U	410 U
bis(2-Ethylhexyl)phthalate			550 U	370 U	350 U	480 U	6,900 U	1,900 U	410 U
Carbazole			550 U	370 U	350 U	480 U	6,900 U	1,900 U	410 U
Chrysene	1,000	3,900	450 J	370 U	91 J	90 J	6,900 U	1,900 U	410 U
Dibenzo(a,h)anthracene	330	330	550 U	370 U	350 U	480 U	6,900 U	1,900 U	410 U
Dibenzofuran			550 U	370 U	350 U	480 U	6,900 U	1,900 U	410 U
Di-n-butylphthalate			550 U	370 U	350 U	480 U	6,900 U	1,900 U	410 U
Fluoranthene	100,000	100,000	550	370 U	180 J	160 J	6,900 U	1,900 U	54 J
Fluorene	30,000	100,000	550 U	370 U	350 U	480 U	6,900 U	1,900 U	410 U
Indeno(1,2,3-cd)pyrene	500	500	260 J	370 U	350 U	480 U	6,900 U	1,900 U	410 U
Naphthalene	12,000	100,000	460 J	370 U	350 U	480 U	6,900 U	1,900 U	410 U
Phenanthrene	100,000	100,000	270 J	370 U	110 J	110 J	6,900 U	1,900 U	410 U
Pyrene	100,000	100,000	560	370 U	150 J	140 J	6,900 U	1,900 U	410 U

Notes

Higlighted cells correspond to highest Soil Cleanup Objective exceeded.

U - The compound was not detected at the indicated concentration.

J - The concentration given is an approximate value.

N - The analysis indicates the presence of an analyte that has been "tentatively identified".

D - Concentration obtained from a dilution.

B - The compound was detected in the associated trip blank.

NS - Not sampled.

TABLE 3
SUMMARY OF ON-SITE SOIL SAMPLING RESULTS (VOCs & SVOCs)
REMEDIAL INVESTIGATION
FORMER KARG BROTHERS TANNERY
ENVIRONMENTAL RESTORATION PROGRAM
JOHNSTOWN, NEW YORK

Boring ID Sample Depth (feet) Sampling Date Matrix Units	Part 375 Unrestricted Use Soil Cleanup Objective ug/kg	Part 375 Restricted Residential Use Soil Cleanup Objective ug/kg	K-00-SB-7 3-4 7/20/2011 SOIL ug/kg	K-00-SB-8 0.5-2.5 7/20/2011 SOIL ug/kg	K-0-SB-9 2-3 7/20/2011 SOIL ug/kg	K-00-SB-10 1-3 7/20/2011 SOIL ug/kg	K-00-SB-11 2-4 7/20/2011 SOIL ug/kg	K-00-SB-12 3-4 7/20/2011 SOIL ug/kg	K-00-SB-13 3-5 7/20/2011 SOIL ug/kg
VOCs									
Acetone	50	100,000	29 U	28 U	30 U	29 U	33 U	35 U	31 U
Carbon Disulfide			2.9 J	5.6 U	6.1 U	5.9 U	6.6 U	6.9 U	6.1 U
Chlorobenzene	1,100	100,000	5.8 UJ	5.6 UJ	6.1 U	5.9 U	6.6 U	6.9 UJ	6.1 U
Cyclohexane			5.8 U	5.6 U	6.1 U	5.9 U	6.6 U	48 J	6.1 U
Ethylbenzene	1,000	41,000	5.8 UJ	5.6 UJ	6.1 U	5.9 U	6.6 U	450 J	6.1 U
Isopropylbenzene			5.8 R	5.6 R	6.1 U	5.9 U	6.6 U	2700 DNJ	6.1 U
Methylcyclohexane			6 U	6 U	6 U	6 U	7 U	1,600 DJ	6 U
Methylene Chloride	50	100,000	19	14	20 BU	6.8	27 BU	17 BU	7.9
Toluene	700	100,000	5.8 U	5.6 U	6.1 U	5.9 U	6.6 U	6.9 U	6.1 U
Total TICs									
SVOCs									
Acenaphthene	20,000	100,000	380 U	580 J	400 U	390 U	440 U	450 U	410 U
Acenaphthylene	100,000	100,000	380 U	1,800 U	400 U	65 J	440 U	450 U	410 U
Anthracene	100,000	100,000	380 U	1,600 J	56 J	60 J	440 U	450 U	410 U
Benzo(a)anthracene	1,000	1,000	380 U	4,200	110 J	260 J	110 J	450 U	130 J
Benzo(a)pyrene	1,000	1,000	380 U	3,800	96 J	310 J	100 J	450 U	220 J
Benzo(b)fluoranthene	1,000	1,000	380 U	4,600	130 J	380 J	110 J	450 U	230 J
Benzo(g,h,i)perylene	100,000	100,000	380 U	2,100	53 J	180 J	440 U	450 U	150 J
Benzo(k)fluoranthene	800	3,900	380 U	1,800 J	400 U	110 J	440 U	450 U	66 J
bis(2-Ethylhexyl)phthalate			380 U	1,800 U	400 U	390 U	440 U	450 U	410 U
Carbazole			380 U	700 J	400 U	390 U	440 U	450 U	410 U
Chrysene	1,000	3,900	380 U	4,000	99 J	270 J	100 J	450 U	130 J
Dibenzo(a,h)anthracene	330	330	380 U	540 J	400 U	390 U	440 U	450 U	410 U
Dibenzofuran			380 U	370 J	400 U	390 U	440 U	450 U	410 U
Di-n-butylphthalate			380 U	1,800 U	400 U	390 U	440 U	450 U	410 U
Fluoranthene	100,000	100,000	380 U	7,400	200 J	400	250 J	450 U	220 J
Fluorene	30,000	100,000	380 U	730 J	400 U	390 U	440 U	450 U	410 U
Indeno(1,2,3-cd)pyrene	500	500	380 U	1,800 J	400 U	150 J	440 U	450 U	110 J
Naphthalene	12,000	100,000	380 U	440 J	300 J	76 J	440 U	250 J	410 U
Phenanthrene	100,000	100,000	380 U	6,000	190 J	180 J	170 J	450 U	74 J
Pyrene	100,000	100,000	380 U	6,700	170 J	370 J	200 J	450 U	180 J

Notes

Higlighted cells correspond to highest Soil Cleanup Objective exceeded.

U - The compound was not detected at the indicated concentration.

J - The concentration given is an approximate value.

N - The analysis indicates the presence of an analyte that has been "tentatively identified".

D - Concentration obtained from a dilution.

B - The compound was detected in the associated trip blank.

NS - Not sampled.

TABLE 3
SUMMARY OF ON-SITE SOIL SAMPLING RESULTS (VOCs & SVOCs)
REMEDIAL INVESTIGATION
FORMER KARG BROTHERS TANNERY
ENVIRONMENTAL RESTORATION PROGRAM
JOHNSTOWN, NEW YORK

Boring ID	Part 375	Part 375	K-00-SB-14	K-00-SB-15		K-00-SB-16	K-00-SB-17	K-00-SB-18	K-00-SB-19
Sample Depth (feet)	Unrestricted Use Soil Cleanup Objective	Restricted Residential Use Soil Cleanup Objective	1-2	5-7	K-00-SB-X	0-1	0-2	0-2	2-3
Sampling Date			7/20/2011	7/20/2011	7/20/2011	7/20/2011	7/20/2011	7/20/2011	7/21/2011
Matrix			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
VOCs									
Acetone	50	100,000	120	35 U	35 U	26 U	26 U	31 U	70
Carbon Disulfide			4.6 J	7 U	7 U	5.2 U	5.2 U	6.2 U	6.5 U
Chlorobenzene	1,100	100,000	6.7 U	7 U	7 U	5.2 U	5.2 U	6.2 U	56
Cyclohexane			6.7 U	7 U	7 U	5.2 U	5.2 U	6.2 U	6.5 U
Ethylbenzene	1,000	41,000	6.7 U	7 U	7 U	5.2 U	5.2 U	6.2 U	6.5 U
Isopropylbenzene			2.5 J	7 U	7 U	5.2 U	5.2 U	6.2 U	6.5 U
Methylcyclohexane			7 U	7 U	7 U	5 U	5 U	6 U	7 U
Methylene Chloride	50	100,000	23 BU	7 U	7 U	5.2 U	19 BU	6.2 U	8.1 J
Toluene	700	100,000	1.3 J	7 U	7 U	5.2 U	5.2 U	6.2 U	2.8 J
Total TICs									460
SVOCs									
Acenaphthene	20,000	100,000	450 U	460 U	460 U	340 U	350 U	410 U	980
Acenaphthylene	100,000	100,000	450 U	460 U	460 U	340 U	350 U	410 U	190 J
Anthracene	100,000	100,000	450 U	460 U	460 U	340 U	350 U	410 U	2,600
Benzo(a)anthracene	1,000	1,000	830	460 U	460 U	340 U	350 U	410 U	5,400
Benzo(a)pyrene	1,000	1,000	1,500	460 U	460 U	340 U	350 U	410 U	3,900
Benzo(b)fluoranthene	1,000	1,000	1,700	460 U	460 U	340 U	350 U	410 U	4,800
Benzo(g,h,i)perylene	100,000	100,000	880	460 U	110 J	340 U	350 U	410 U	1,000
Benzo(k)fluoranthene	800	3,900	600	460 U	460 U	340 U	350 U	410 U	2,200
bis(2-Ethylhexyl)phthalate			450 U	460 U	460 U	340 U	350 U	410 U	870 U
Carbazole			450 U	460 U	460 U	340 U	350 U	410 U	1,000
Chrysene	1,000	3,900	940	460 U	460 U	340 U	350 U	410 U	5,000
Dibenzo(a,h)anthracene	330	330	200 J	460 U	460 U	340 U	350 U	410 U	360 J
Dibenzofuran			450 U	460 U	460 U	340 U	350 U	410 U	540 J
Di-n-butylphthalate			450 U	460 U	460 U	340 U	350 U	410 U	130 J
Fluoranthene	100,000	100,000	800	460 U	460 U	340 U	350 U	410 U	8,500 D
Fluorene	30,000	100,000	450 U	460 U	460 U	340 U	350 U	410 U	1,200
Indeno(1,2,3-cd)pyrene	500	500	710	460 U	460 U	340 U	350 U	410 U	990
Naphthalene	12,000	100,000	450 U	460 U	460 U	340 U	350 U	410 U	700 J
Phenanthrene	100,000	100,000	150 J	460 U	460 U	340 U	350 U	410 U	8,500 D
Pyrene	100,000	100,000	830	460 U	460 U	340 U	350 U	410 U	8,300 D

Notes

Higlighted cells correspond to highest Soil Cleanup Objective exceeded.

U - The compound was not detected at the indicated concentration.

J - The concentration given is an approximate value.

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D - Concentration obtained from a dilution.

B - The compound was detected in the associated trip blank.

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TABLE 3
SUMMARY OF ON-SITE SOIL SAMPLING RESULTS (VOCs & SVOCs)
REMEDIAL INVESTIGATION
FORMER KARG BROTHERS TANNERY
ENVIRONMENTAL RESTORATION PROGRAM
JOHNSTOWN, NEW YORK

Boring ID	Part 375	Part 375	K-00-SB-20	K-00-SB-21	K-00-SB-22	K-00-SB-23			K-00-SB-24
Sample Depth (feet)	Unrestricted Use Soil Cleanup Objective	Restricted Residential Use Soil Cleanup Objective	1-2	3-3.5	0-1	4-5	11-12	K-00-X-2	2-3
Sampling Date			7/21/2011	7/21/2011	7/21/2011	7/21/2011	7/21/2011	7/21/2011	7/21/2011
Matrix			SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
VOCs									
Acetone	50	100,000	26 U	45	27 U	26 U	28 UJ	29 UJ	29 U
Carbon Disulfide			5.2 U	5.7 U	5.5 U	5.1 U	5.7 UJ	5.7 UJ	5.7 U
Chlorobenzene	1,100	100,000	5.2 U	5.7 U	5.5 U	5.1 U	5.7 UJ	5.7 UJ	5.7 U
Cyclohexane			5.2 U	5.7 U	5.5 U	5.1 U	5.7 U	5.7 UJ	5.7 U
Ethylbenzene	1,000	41,000	5.2 U	5.7 U	5.5 U	5.1 U	5.7 UJ	5.7 UJ	5.7 U
Isopropylbenzene			5.2 U	5.7 U	5.5 U	5.1 U	5.7 UJ	5.7 UJ	5.7 UJ
Methylcyclohexane			5 U	6 U	6 U	5 U	6 U	6 UJ	6 U
Methylene Chloride	50	100,000	3.9 J	2.7 J	5.5 U	3.8 J	16 J	80 J	10 J
Toluene	700	100,000	1.4 J	5.7 U	5.5 U	5.1 U	1.9 J	2 J	5.7 U
Total TICs				89		10			
SVOCs									
Acenaphthene	20,000	100,000	350 U	130 J	360 U	1,500 J	370 U	380 U	380 U
Acenaphthylene	100,000	100,000	350 U	750 U	360 U	1,700 U	370 U	380 U	380 U
Anthracene	100,000	100,000	350 U	340 J	97 J	2,400	370 U	380 U	380 U
Benzo(a)anthracene	1,000	1,000	70 J	670 J	290 J	7,100	370 U	380 U	380 U
Benzo(a)pyrene	1,000	1,000	62 J	540 J	260 J	5,700	370 U	380 U	80 J
Benzo(b)fluoranthene	1,000	1,000	85 J	710 J	340 J	6,000	370 U	380 U	57 J
Benzo(g,h,i)perylene	100,000	100,000	350 U	280 J	120 J	1,700	370 U	380 U	200 J
Benzo(k)fluoranthene	800	3,900	350 U	310 J	130 J	2,200	370 U	380 U	380 U
bis(2-Ethylhexyl)phthalate			350 U	750 U	360 U	1,700 U	370 U	380 U	550
Carbazole			350 U	160 J	47 J	1,500 J	370 U	380 U	380 U
Chrysene	1,000	3,900	67 J	730 J	290 J	7,900	370 U	380 U	380 U
Dibenzo(a,h)anthracene	330	330	350 U	750 U	360 U	530 J	370 U	380 U	380 U
Dibenzofuran			350 U	750 U	360 U	1,200 J	370 U	380 U	380 U
Di-n-butylphthalate			350 U	750 U	360 U	1,700 U	370 U	380 U	380 U
Fluoranthene	100,000	100,000	120 J	1,400	560	10,000	370 U	380 U	63 J
Fluorene	30,000	100,000	350 U	150 J	360 U	1,900	370 U	380 U	380 U
Indeno(1,2,3-cd)pyrene	500	500	350 U	190 J	85 J	1,400 J	370 U	380 U	110 J
Naphthalene	12,000	100,000	350 U	750 U	360 U	420 J	370 U	380 U	380 U
Phenanthrene	100,000	100,000	64 J	1,500	410	11,000	370 U	380 U	380 U
Pyrene	100,000	100,000	110 J	1,300	520	9,700	370 U	380 U	65 J

Notes

Higlighted cells correspond to highest Soil Cleanup Objective exceeded.

U - The compound was not detected at the indicated concentration.

J - The concentration given is an approximate value.

N - The analysis indicates the presence of an analyte that has been "tentatively identified".

D - Concentration obtained from a dilution.

B - The compound was detected in the associated trip blank.

NS - Not sampled.

TABLE 4
SUMMARY OF GROUNDWATER SAMPLING RESULTS (Metals + CN)
REMEDIAL INVESTIGATION
FORMER KARG BROTHERS TANNERY
ENVIRONMENTAL RESTORATION PROGRAM
JOHNSTOWN, NEW YORK

Well ID Sampling Date Matrix Units	NYSDEC Class GA Standard or Guidance Value ug/L	MW-1 11/2/2011 WATER ug/L	MW-2 11/2/2011 WATER ug/L	MW-3 11/2/2011 WATER ug/L	MW-4 11/2/2011 WATER ug/L	MW-5 11/2/2011 WATER ug/L	MW-X MW-5 duplicate WATER ug/L	MW-6 11/2/2011 WATER ug/L	MW-7 11/2/2011 WATER ug/L	MW-8 11/2/2011 WATER ug/L
Metals										
Aluminum		59	49 J	31 J	34 J	62	62	62	41 J	27 J
Antimony	3	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Arsenic	25	10 U	10 U	5.62 J	40.1	10 U	10 U	10 U	10 U	10 U
Barium	1,000	62	108	43 J	140	59	59	94	34 J	96
Beryllium	3	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Cadmium	5	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U
Calcium		135,000	106,000	107,000	110,000	107,000	108,000	64,600	72,100	46,200
Chromium	50	5 U	5 U	3.23 J	5 U	5 U	5 U	4 J	5 U	5 U
Cobalt		15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U	15 U
Copper	200	5.03 J	2.72 J	2.18 J	10 U	10 U	3.38 J	2 J	2.14 J	2.14 J
Cyanide	200	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Iron	300**	742 J	3,830 J	4,130 J	744 J	1,040 J	1,050 J	1,320 J	586 J	1,260 J
Lead	25	3.28 J	2.67 J	6 U	4 J	3 J	4 J	3 J	3 J	4 J
Magnesium	35,000*	5,510 J	10,100 J	4,980 J	15,600 J	6,550 J	6,600 J	6,040 J	5,840 J	4,940 J
Manganese	300**	273	96.1	387	36	330	329	76	222	92
Mercury	0.7	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.20 U	0.2 U	0.2 U
Nickel	100	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Potassium		8,140	10,000	5,990	3,260	7,690	7,640	7,270	6,650	5,400
Selenium	10	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Silver	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Sodium	20,000	16,900	46,400	9,180	67,600	24,600	24,900	50,000	60,100	222,000
Thallium	0.5*	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Vanadium		20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Zinc	2,000*	28.7	10.6 J	7 J	10 J	11 J	20 U	7.79 J	8 J	7 J

Notes

- Concentration exceeds corresponding NYSDEC Class GA Standard.

U - The compound was not detected at the indicated concentration.

J - Estimated value.

* Guidance Value.

**Sum of these compounds cannot exceed 300 ug/L.

TABLE 5
SUMMARY OF GROUNDWATER SAMPLING RESULTS (VOCs & SVOCs)
REMEDIAL INVESTIGATION
FORMER KARG BROTHERS TANNERY
ENVIRONMENTAL RESTORATION PROGRAM
JOHNSTOWN, NEW YORK

Well ID Sampling Date Matrix Units	NYSDEC Class GA Standard ug/L	MW-1 11/2/2011 WATER ug/L	MW-2 11/2/2011 WATER ug/L	MW-3 11/2/2011 WATER ug/L	MW-4 11/3/2011 WATER ug/L	MW-5 11/3/2011 WATER ug/L	MW-X MW-5 duplicate WATER ug/L	MW-6 11/3/2011 WATER ug/L	MW-7 11/3/2011 WATER ug/L	MW-8 11/3/2011 WATER ug/L
VOCs										
Benzene	1	1 U	1 U	1 U	1 U	0.87 J	0.79 J	1 U	1 U	1 U
Ethyl Benzene	5	1 U	1 U	1 U	1 U	4	4	1 U	1 U	1 U
Isopropylbenzene	5	2	1 U	1 U	1 U	31	31	1 U	1 U	1 U
m/p-Xylenes	5	2 U	2 U	2 U	2 U	1.1 J	1.3 J	2 U	2 U	2 U
Methyl tert-butyl Ether	10	1 U	1 U	1 U	1 U	1 U	1 U	1.5	0.59 J	1 U
Methyl Cyclohexane		1 U	1 U	1 U	1 U	1	1	1 U	1 U	1 U
o-Xylene	5	1 U	1 U	1 U	1 U	4	4	1 U	1 U	1 U
Total VOC TICs		2.94				877.9	885.7			
SVOCs										
Naphthalene	10	11 U	11 U	12 U	10 U	4.4 J	4.8 J	11 U	12 U	12 U
Total SVOC TICs		48 J	18 J	16 J		397.2 J	1159 J	56 J	57 J	

Notes

- Concentration exceeds corresponding NYSDEC Class GA Standard.

U - The compound was not detected at the indicated concentration.
J - The concentration given is an estimated value.

TABLE 6
SUMMARY OF SOIL SAMPLING RESULTS
INTERIM REMEDIAL MEASURE IMPORTED FILL
FORMER KARG BROTHERS TANNERY
ENVIRONMENTAL RESTORATION PROGRAM
JOHNSTOWN, NEW YORK

Sample ID	6 NYCRR Part 375	6 NYCRR Part 375	FCLFKARG 08-02-13	FCLF-KARG 02	FCLF-KARG 03	FCLF-KARG 04	FCLF-KARG 05
	Unrestricted Use	Protection of Groundwater					
Sampling Date	Soil Cleanup	Soil Cleanup	8/2/13	10/4/13	10/4/13	10/4/13	10/4/13
Matrix	Objective	Objective	SOIL	SOIL	SOIL	SOIL	SOIL
Units	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
VOCs							
Methylene Chloride	50	50	0.54 U	1.4 J	6.3 U	1.5 J	1.3 J
Tetrachloroethene	1,300	1,300	1.9 J	6 U	6.3 U	6.2 U	6.2 U
SVOCs							
Diethylphthalate			36 UQ	140 J	NS	410 U	NS
Dimethylphthalate			380	510	NS	1,400	NS
Organochlorine Pesticides			ND	ND	NS	ND	NS
Polychlorinated Biphenyls			ND	ND	NS	ND	NS

TAL Metals							
Units	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
Aluminum			3,520	4,100	NS	4,300	NS
Antimony			0.58 UN	2.53 U	NS	2.65 U	NS
Arsenic	13	16	2.32 N	1.91	NS	1.87	NS
Barium	350	820	13.8	15.6	NS	15.7	NS
Beryllium	7.2	47	0.18 N	0.204 J	NS	0.2 J	NS
Cadmium	2.5	7.5	0.18	0.303 U	NS	0.319 U	NS
Calcium			24,400	15,800	NS	17,700	NS
Chromium	30	-	3.95 N	4.15	NS	4.35	NS
Cobalt			3.52	4.06	NS	4.06	NS
Copper	50	1,720	6.36 N	6.25	NS	6.05	NS
Iron			9,680	10,500	NS	10,700	NS
Lead	63	450	2.59	4.19	NS	3.65	NS
Magnesium			2,560	1,900	NS	2,300	NS
Manganese	1,600	2,000	173	177	NS	180	NS
Mercury	0.18	0.73	0.007 J	0.01 J	NS	0.012 J	NS
Nickel	30	130	8.27	8.16	NS	8.22	NS
Potassium			295	340	NS	369	NS
Selenium	3.9	4	0.21 J	0.846 J	NS	0.777 J	NS
Silver	2	8	0.115 U	0.634	NS	0.665	NS
Sodium			99.9	44.6	NS	48 J	NS
Thallium			0.465 U	2.02 U	NS	2.12 U	NS
Vanadium			13.1 N	14.5	NS	14.8	NS
Zinc	109	2,480	24.3 N	27.5	NS	26.5	NS

Notes

U - The compound was not detected at the indicated concentration.

J - The concentration given is an estimated value.

ND - Not detected.

NS - Not sampled.

N - The matrix spike recovery was outside control limits

Q - LCS did not meet control limit rquirements.

0 150 300 600 900 1,200 Feet

Legend

Former Karg Brothers Tannery

N

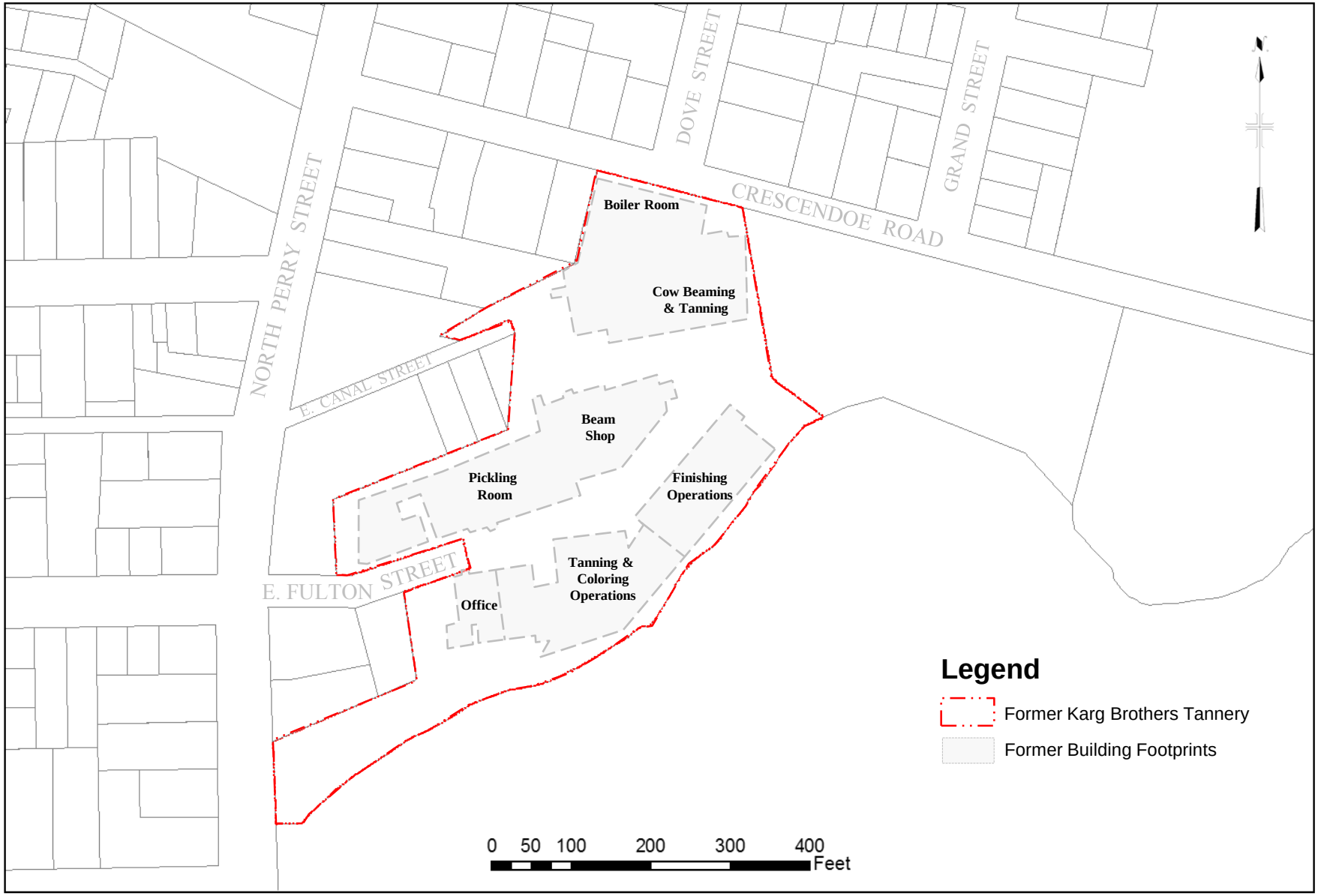
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
FORMER KARG BROTHERS TANNERY ERP
SITE MANAGEMENT PLAN

LOCATION MAP

ARCADIS

FIGURE
1

Document Path: G:\GISMOD\2384015\SMP\Karg - Location Map.mxd



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FORMER KARG BROTHERS TANNERY ERP
JOHNSTOWN, NEW YORK

SITE MANAGEMENT PLAN

FORMER SITE FEATURES

FIGURE 2

ARCADIS

FORMER KARG BROTHERS TANNERY ERP
JOHNSTOWN, NEW YORK

SITE MANAGEMENT PLAN

PREVIOUS GROUND SURFACE COVER OF KARG PARCEL

SCALE: 1"=100'

JANUARY 2015

FIGURE **3**

LEGEND

649 — POTENTIOMETRIC CONTOUR

649.71 — GROUNDWATER ELEVATION (FT AMSL NAVD85)

BUILDINGS

ASPHALT AREAS

CONCRETE AREAS

FORMER KARG BROS. TANNERY

0 100' 200'

SCALE: 1"=100'

SOURCE: SURVEY COMPLETED BY THEW ASSOCIATES LAND SURVEYORS IN JANUARY 2012

FORMER KARG BROTHERS TANNERY ERP
JOHNSTOWN, NEW YORK
SITE MANAGEMENT PLAN

POTENTIOMETRIC CONTOUR MAP (NOVEMBER 2, 2011)

ARCADIS | Figure 4

USER: HAUSMANN FILENAME: G:\ACAD\PROJ\2384015\FIGURE\FIGURE 4.DWG SAVE DATE: 6/9/2016 1:08 PM PLOT DATE: 6/9/2016 1:15 PM

K-00-SS-87	9/15/2010
Zinc	142

K-00-SS-93	9/15/2010
Chromium	31 J

K-00-SS-40	9/15/2010
Arsenic	68.6
Chromium	229 J
Lead	269
Mercury	0.47
Zinc	557

K-00-SS-38	9/15/2010
Chromium	87.7 J
Mercury	0.215
Zinc	125

K-00-SS-73	9/15/2010
Chromium	113 J
Copper	53.1
Lead	192
Mercury	1.1 D
Nickel	56.8
Silver	2.43
Zinc	246

K-00-SS-42	9/15/2010
Arsenic	20.3
Chromium	236 J
Lead	210
Mercury	0.297
Zinc	298

K-00-SS-34	9/15/2010
Arsenic	14
Chromium	166 J
Lead	500
Mercury	0.304
Zinc	293

K-00-SS-80	9/15/2010
Chromium	310 J
Lead	488
Mercury	0.232
Zinc	175

K-00-SS-48	9/15/2010
Arsenic	16.7
Chromium	160 J
Zinc	345

K-00-SS-65	9/15/2010
Arsenic	16.1
Chromium	147 J
Lead	106
Mercury	0.439
Zinc	156

K-00-SS-56	9/15/2010
Arsenic	14.4
Chromium	707 J
Copper	89.8
Lead	1,520
Mercury	2.3 D
Silver	3.66
Zinc	817

K-00-SS-14	9/15/2010
Chromium	39.4 J

K-00-SS-27	9/15/2010
Chromium	241 J
Zinc	216

K-00-SS-10	9/15/2010
Chromium	39.8 J

K-00-SS-08	9/15/2010
Arsenic	19.5
Chromium	165 J
Lead	70
Mercury	0.299

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CITY OF JOHNSTOWN, NEW YORK
FORMER KARG BROTHERS TANNERY
ENVIRONMENTAL RESTORATION PROGRAM E518022

SITE MANAGEMENT PLAN

SUMMARY OF ON-SITE SURFACE SOIL METALS EXCEEDANCES

ARCADIS U.S., INC.

AUGUST 2013

FIGURE 5

K-00-SB-1	7/20/2011
	3-4 ft
Arsenic	361
Chromium	1520 N
Copper	125
Lead	388
Mercury	8.4 D
Silver	2.2
Zinc	809 N

K-00-SB-4	7/20/2011
	0-1 ft
Chromium	106 N
Copper	566

K-00-SB-5	7/20/2011
	4-5 ft
Arsenic	52.3
Chromium	116 N
Mercury	0.642 D

K-00-SB-3	7/20/2011	
	0-1 ft	3-4 ft
Arsenic	2.25	26.3
Chromium	31.7 N	34.1 N
Lead	4.96	90.9
Mercury	0.017	0.487
Zinc	35 N	137 N

K-00-SB-6	7/20/2011
	4-8 ft
Chromium	59.1 N

K-00-SB-10	7/20/2011
	1-3 ft
Arsenic	60.6
Chromium	126 N
Lead	107
Mercury	0.559 D
Zinc	134 N

K-00-SB-7	7/20/2011
	3-4 ft
Arsenic	16.6
Chromium	160 N

K-00-SB-9	7/20/2011
	2-3 ft
Arsenic	14.8
Chromium	43 N

K-00-SB-12	7/20/2011
	3-4 ft
Chromium	40.2 N
Copper	97
Lead	354
Mercury	4.86 D
Zinc	141 N

K-00-SB-11	7/20/2011
	2-4 ft
Lead	118
Mercury	0.728 D
Zinc	110 N

K-00-SB-24	7/21/2011
	2-3 ft
Lead	78.3 N*

K-00-SB-8	7/20/2011
	0.5-2.5
Chromium	80.1 N
Copper	78.9
Lead	329
Nickel	38
Zinc	113 N

K-00-SB-13	7/20/2011
	3-5 ft
Mercury	0.229

K-00-SB-14	7/20/2011
	1-2 f
Lead	1,920
Zinc	193 N

K-00-SB-19	7/21/2011
	2-3 ft
Arsenic	39.6
Chromium	95.3 N*
Lead	101.0 N*
Mercury	0.29
Zinc	139

K-00-SB-21	7/21/2011
	3-3.5 ft
Chromium	140 N*
Copper	69.1 N*
Lead	102.0 N*
Mercury	0.281
Zinc	171

K-00-SB-17	7/20/2011
	0-2 ft
Chromium	52.2 N

NOTE: Soil metals concentrations for detected compounds given in mg/kg.

= Concentration exceeds corresponding 6 NYCRR Part 375 Restricted Residential Soil Cleanup Objective (SCO).

= Concentration exceeds corresponding 6 NYCRR Part 375 Unrestricted Use Soil Cleanup Objective (SCO).

Legend

- Former Karg Brothers Tannery
- Soil Boring
- Laboratory Surface Soil Sample

0 50 100 200 300 400 500 Feet

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CITY OF JOHNSTOWN, NEW YORK
FORMER KARG BROTHERS TANNERY
ENVIRONMENTAL RESTORATION PROGRAM E518022

SITE MANAGEMENT PLAN

SUMMARY OF SUBSURFACE SOIL METALS EXCEEDANCES

ARCADIS U.S., INC.

AUGUST 2013

FIGURE 6

LEGEND

Blue	ASPHALT AREAS (36,195 S.F. = 0.8 AC.)
Orange	CONCRETE AREAS (112,395 S.F. = 2.6 AC.)
Green	GRASS AREAS WHICH RECEIVED DEMARCATION LAYER (81,932 S.F. = 1.9 AC.)
Black	AREA WHICH RECEIVED ASPHALT CAP (~2,000 S.F. = 0.05 AC.)
Red line	**FORMER KARG BROS. TANNERY (230,522 S.F. = 5.3 AC.)**

SCALE: 1" = 100'

SOURCE: SURVEY COMPLETED BY THEW ASSOCIATES LAND SURVEYORS IN JANUARY 2012

ARCADIS

FORMER KARG BROTHERS TANNERY ERP
JOHNSTOWN, NEW YORK

SITE MANAGEMENT PLAN

DEMARCATION LAYER

SCALE: 1"=100'

JANUARY 2015

FIGURE **7**

APPENDIX A – EXCAVATION WORK PLAN

A-1 NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination, the site owner or their representative will notify the Department. Currently, this notification will be made to:

Region 5 Hazardous Waste Remediation Engineer
Division of Environmental Remediation
NYSDEC Region 5
1115 Route 86 P.O. Box 296
Ray Brook, NY 12977

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent, plans for site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control,
- A summary of environmental conditions anticipated in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work,
- A summary of the applicable components of this EWP,
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120,
- A copy of the contractor's health and safety plan, in electronic format, if it differs from the HASP provided in Appendix D of this document,
- Identification of disposal facilities for potential waste streams,

- Identification of sources of any anticipated backfill, along with all required chemical testing results.

A-2 SOIL SCREENING METHODS

Visual, olfactory and instrument-based (PID and XRF) soil screening will be performed by a qualified environmental professional during all remedial and development excavations into known or potentially contaminated material (remaining contamination below demarcation layer). Soil screening will be performed during all excavation and invasive work below the demarcation layer performed during site development, such as excavations for foundations and utility work, after issuance of the COC.

Soils will be segregated based on their location above or below the demarcation layer, previous environmental data, and screening results into material that requires off-site disposal, material that requires testing, material that can be returned to the subsurface, and material that can be used as cover soil.

If unanticipated conditions are encountered during the excavation of soil, such as unknown pipes, tanks, drums, or other wastes, NYSDEC will be notified. Any unanticipated material will be sampled for characterization by an off-site analytical laboratory. The analytical protocol and analyte list will be developed in consultation with NYSDEC. Photographs and field notes will be used to document any unanticipated material or conditions.

A-3 STOCKPILE METHODS

It is anticipated that any clean soil from above the demarcation layer would be staged at the City's secured stock yard near the site for subsequent onsite reuse or unregulated off-site disposal. Any contaminated soil from below the demarcation layer that is removed during future work would be stockpiled onsite for not more than 90 days and will be disposed of in accordance with federal, state, and local regulations pending receipt of laboratory analytical results.

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by NYSDEC.

A-4 MATERIALS EXCAVATION AND LOAD OUT

A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated material.

The owner of the property and its contractors are solely responsible for safe execution of all invasive and other work performed under this Plan.

The presence of utilities and easements on the site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the site.

Loaded vehicles leaving the site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

A truck wash will be operated on-site. The qualified environmental professional will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the site until the activities performed under this section are complete.

Locations where vehicles enter or exit the site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the site are clean of dirt and other materials derived from the site during intrusive excavation activities. Cleaning of the

adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials.

A-5 MATERIALS TRANSPORT OFF-SITE

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

All trucks will be washed prior to leaving the site. Truck wash waters will be collected and disposed of off-site in an appropriate manner.

Truck transport routes are as follows: Vehicles will proceed westbound on Crescendoe Road to North Perry Street. Proceed northbound on North Perry Street to Briggs Street. Take a right onto Briggs Street and proceed eastbound to State Route 30A. Take a right onto State Route 30A and head south. Cross over Mohawk River and turn left onto State Route 920P. Enter Interstate I-90 (Figure 8). All trucks loaded with site materials will exit the vicinity of the site using only these approved truck routes. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport; [(g) community input [where necessary]]

Trucks will be prohibited from stopping and idling in the neighborhood outside the project site.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

A-6 MATERIALS DISPOSAL OFF-SITE

All soil/fill/solid waste excavated and removed from below the demarcation layer at the site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of soil/fill from this site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc. Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Material that does not meet Track 1 unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

A-7 MATERIALS REUSE ON-SITE

Chemical criteria for on-site reuse of material have been approved by NYSDEC and consist of the 6 NYCRR Part 375 Restricted Residential and Protection of Groundwater Soil Cleanup Objectives. The qualified environmental professional will ensure that procedures defined for materials reuse in this SMP are followed and that unacceptable material does not remain on-site. Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for re-use on-site will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the site will not be reused on-site.

A-8 FLUIDS MANAGEMENT

All liquids to be removed from the site, including excavation dewatering and groundwater monitoring well purge and development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Dewatering, purge and development fluids will not be recharged back to the land surface or subsurface of the site, but will be managed off-site.

Discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream or river) will be performed under a SPDES permit.

A-9 COVER SYSTEM RESTORATION

After the completion of soil removal and any other invasive activities the cover system will be restored in a manner that complies with the ROD]. The demarcation layer, consisting of orange snow fencing material or equivalent material will be replaced to provide a visual reference to the top of the 'Remaining Contamination Zone', the zone that requires adherence to special conditions for disturbance of remaining contaminated soils defined in this Site Management Plan. If the type of cover system changes from that which exists prior to the excavation (i.e., a soil cover is replaced by asphalt), as shown on Figure 7 and discussed in 1.4.3 this will constitute a modification of the cover element of the remedy and the upper surface of the 'Remaining Contamination. A figure showing the modified surface will be included in the subsequent Periodic Review Report and in any updates to the Site Management Plan.

A-10 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the site will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP prior to receipt at the site.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the site.

All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d). Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards consist of the 6 NYCRR Part 375 Restricted Residential and Protection of Groundwater Soil Cleanup Objectives. Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this site, will not be imported onto the site without prior approval by NYSDEC. Solid waste will not be imported onto the site.

Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

A-11 STORMWATER POLLUTION PREVENTION

Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters

Silt fencing or hay bales will be installed around the entire perimeter of the construction area.

A-12 CONTINGENCY PLAN

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for full a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs), unless the site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the periodic reports prepared pursuant to Section 5 of the SMP.

A-13 COMMUNITY AIR MONITORING PLAN

The Community Air Monitoring Plan (CAMP) for the site, which is consistent with the NYSDOH generic CAMP, is provided in Appendix D. Air sampling station locations will be adjusted on a daily or more frequent basis based on actual wind directions to provide an upwind and at least two downwind monitoring stations. A fixed downwind monitoring station should be located at the western site perimeter, at the boundary between the site and the residential homes on East Canal Street. Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

A-14 ODOR CONTROL PLAN

This odor control plan is capable of controlling emissions of nuisance odors off-site. If nuisance odors are identified at the site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the property owner's Remediation Engineer, and any measures that are implemented will be discussed in the Periodic Review Report.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

A-15 DUST CONTROL PLAN

A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:

- Dust suppression will be achieved through the use of a dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.

- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

A-16 OTHER NUISANCES

A plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise control ordinances.

APPENDIX B – METES AND BOUNDS

Schedule "B" Title Exceptions

The encumbrances listed hereon are based on a title report prepared by United General Title Insurance Company, Commitment Number CU-3748, dated May 1, 2007.

Items not listed below are standard title exceptions and/or are not matters that pertain to this survey.

(14) Subject to a 30-foot sewer right-of-way and easement granted by The Johnstown Cemetery Association to the City of Johnstown by instrument dated June 5, 1903 and recorded in the Fulton County Clerk's Office on June 5, 1903 in Liber 111 of Deeds at Page 543. Does not encumber the surveyed premises.

Subject to sewer and water rights reserved by the City of Johnstown by instrument dated March 12, 1996 and recorded in the Fulton County Clerk's Office on March 12, 1926 In Liber 182 of Deeds at Page 184. Encumbers the property and is shown hereon.

Subject to a 20-foot sewer right-of-way and easement granted by Peter Spore to the City of Johnstown by Instrument dated June 12, 1963 and recorded in the Fulton County Clerk's Office on October 4, 1963 In Liber 476 of Deeds at Page 217. The description is ambiguous and this easement is presumed to encumber the surveyed premises.

Subject to a 20-foot sewer right-of-way and easement granted by The Johnstown Cemetery Association to the City of Johnstown by instrument dated June 13, 1963 and recorded in the Fulton County Clerk's Office on March 16, 1964 in Liber 476 of Deeds at Page 220. The description is ambiguous and this easement is presumed to encumber the surveyed premises.

Subject to a 20-foot sewer right-of-way and easement granted by Karg Brothers, Inc. to the City of Johnstown by instrument dated February 26, 1964 and recorded in the Fulton County Clerk's Office on March 2, 1964 in Liber 477 of Deeds at Page 935. The description is ambiguous and this easement is presumed to encumber the surveyed premises.

Subject to an easement modification agreement between the City of Johnstown to Karg Brothers, Inc. and Karg Brothers Realty Corp., and an easement granted by Karg Brothers, Inc. and Karg Brothers Realty Corp. to the City of Johnstown by instrument dated June 19, 1967 and recorded in the Fulton County Clerk's Office on June 22, 1967 in Liber 493 of Deeds at Page 429. The easement encumbers the surveyed premises,but is not shown hereon (unplottable).

The easement and right of way encumbers the surveyed premises. However; is no longer necessary as the City of Johnstown owns the parcel the easement and right of way was Intended to benefit.

Subject to an easement modification agreement between the City of Johnstown to Karg Brothers, Inc. and Karg Brothers Realty Corp. by Instrument dated July 29, 1977 and recorded in the Fulton County Clerk's Office on August 8, 1977 in Liber 547 of Deeds at Page 598. The easement encumbers the surveyed premises,but is not shown hereon (unplottable).

The easement and right of way encumbers the surveyed premises. However; is no longer necessary as the City of Johnstown owns the parcel the easement and right of way was Intended to benefit.

Subject to an easement modfication agreement between the City of Johnstown to Karg Brothers, Inc. and Karg Brothers Realty Corp. by Instrument dated December 17, 1991 and recorded In the Fulton County Clerk's Office on January 8, 1992 in Liber 697 of Deeds at Page 201.The easement encumbers the surveyed premises,but is not shown hereon (unplottable).

The easement and right of way encumbers the surveyed premises. However; is no longer necessary as the City of Johnstown owns the parcel the easement and right of way was Intended to benefit.

(15) Subject to an access agreement and rights granted by John Stewart to the Johnstown, Gloversville and Fonda Rail Company by instrument dated May 16, 1873 and recorded In the Fulton County Clerk's Office on September 30, 1874 In Liber 45 of Deeds at Page 546. Presumably does not encumber the surveyed premises and is not plottable. (Much of the document is illegible.)

Subject to a 30-foot sewer right-of-way and easement granted by The Johnstown Cemetery Association to the City of Johnstown by Instrument dated June 5, 1903 and recorded In the Fulton County Clerk's Office on June 5, 1903 In Liber 111 of Deeds at Page 543. Does not encumber the surveyed premises.

Subject to sewer and water rights reserved by the City of Johnstown by Instrument dated March 12, 1996 and recorded In the Fulton County Clerk's Office on March 12, 1926 In Liber 182 of Deeds at Page 184. Encumbers the property and is shown hereon.

Subject to a sewer right-of-way and easement granted by The Johnstown Cemetery Association to the City of Johnstown referenced in an Instrument dated October 14, 1950 and recorded in the Fulton County Clerk's office on October 17, 1950 in Liber 349 of Deeds at Page 295. Does not encumber the surveyed premises.

Subject to a Right of Way referenced in an Instrument dated October 14, 1950 and recorded In the Fulton County Clerk's office on October 17, 1950 in Liber 349 of Deeds at Page 295. Does not encumber the surveyed premises.

Subject to a 20-foot sewer right-of-way and easement granted by Peter Spore to the Subject to a 20-foot sewer right-of-way and easement granted by Peter Spore to the City of Johnstown by Instrument dated June 12, 1963 and recorded In the Fulton County Clerk's Office on October 4, 1963 In Liber 476 of Deeds at Page 217. The description is ambiguous and this easement is presumed to encumber the surveyed premises.

Subject to a 20-foot sewer right-of-way and easement granted by The Johnstown Cemetery Association to the City of Johnstown by instrument dated June 13, 1963 and recorded in the Fulton County Clerk's Office on March 16, 1964 in Liber 476 of Deeds at Page 220. The description is ambiguous and this easement is presumed to encumber the surveyed premises.

Subject to a 20-foot sewer right-of-way and easement granted by Karg Brothers, Inc. to the City of Johnstown by instrument dated February 26, 1964 and recorded in the Fulton County Clerk's Office on March 2, 1964 in Liber 477 of Deeds at Page 935. The description is ambiguous and this easement is presumed to encumber the surveyed premises.

Subject to an easement modification agreement between the City of Johnstown to Karg Brothers, Inc. and Karg Brothers Realty Corp., and an easement granted by Karg Brothers, Inc. and Karg Brothers Realty Corp. to the City of Johnstown by Instrument dated June 19, 1967 and recorded in the Fulton County Clerk's Office on June 22, 1967 in Liber 493 of Deeds at Page 429. The easement encumbers the surveyed premises,but is not shown hereon (unplottable).

The easement and right of way encumbers the surveyed premises. However; is no longer necessary as the City of Johnstown owns the parcel the easement and right of way was Intended to benefit.

Boundary line agreement between Karg Bros. Realty Corporation and Gillmore Oil Company, Inc. by Instrument dated August 28, 1963 and recorded in the Fulton County Clerk's Office on August 28, 1963 In Liber 475 of Deeds at Page 854. This boundary line agreement establishes the property line that is 102.50 feet in length.

Subject to sanitary and storm sewer maintenance or reconstruction rights, use of a roadway, and environmental demolition and testing rights reserved by the City of Johnstown by Instrument dated December 31, 1999 and recorded In the Fulton County Clerk's Office on May 26, 2000 in Liber 860 of Deeds at Page 22. The description is blanket In nature and encumbers the surveyed premises, but is not shown hereon.

(42) Subject to sanitary and storm sewer maintenance or reconstruction rights, use of a roadway, and environmental demolition and testing rights reserved by the City of Johnstown by instrument dated December 31, 1999 and recorded In the Fulton County Clerk's Office on May 26, 2000 In Liber 860 of Deeds at Page 22. The description is blanket In nature, and encumbers the surveyed premises, but is not shown hereon.

Surveyor notes made on "Map of a Portion of the Lands of City of Johnstown," prepared by J. Christopher Foss, dated July 14, 1999 and Revised on May 5, 2000. Encumbers the property but survey map was not recovered by the City of Johnstown.

(43) Boundary line agreement between Karg Bros. Realty Corporation and Gillmore Oil Company, Inc. by Instrument dated August 28, 1963 and recorded in the Fulton County Clerk's Office on August 28, 1963 In Liber 475 of Deeds at Page 854. This boundary line agreement establishes the property line that is 102.50 feet in length.

Unauthorized alteration or addition to a survey map bearing a licensed land surveyors seal is a violation of Section 7209, Subdivision 2 of the New York State Education Law.

Only copies from the original of this survey marked with an original of the surveyor's inked seal or his embossed seal shall be considered to be valid and true copies.

Environmental Easement to be Granted by the City of Johnstown to The People of the State of New York, acting through their Commissioner of the Department of Environmental Conservation

Contains: 228,894 square feet or 5.255 acres

All that tract or parcel of land situate in the City of Johnstown, County of Fulton, State of New York, and being more precisely described as follows:

Beginning at a 5/8-inch rebar with a 1 1/4-inch diameter red plastic cap marked "THEW ASSOCIATES - UTICA NY" (herein after referred to as a 5/8-inch rebar) set on the southerly bounds of Crescendoe Street (40-foot width), said rebar being at the northwesterly corner of a parcel of land conveyed by the City of Johnstown to the Crossroads Incubator Corp. by deed dated December 31, 1999 and recorded in the Fulton County Clerk's Office on May 26, 2000 in Liber 860 of Deeds at Page 22, said rebar having New York State plane coordinates (NAD83/2011 - East Zone) of 1,522,499.33 feet North and 527,137.76 feet East;

thence along the westerly line of Crossroads Incubator Corp., the following two courses and distances:

1. South 09 degrees 30 minutes 39 seconds East, parallel to and 100 feet distant westerly measured at right angles from the westerly building face of Crossroads Incubator Corp., a distance of 206.66 to a set 5/8-inch rebar;
2. South 52 degrees 00 minutes 37 seconds East a distance of 83.72 feet to a MAG Nail set on the northerly line of a parcel of land conveyed by The People's Bank of Johnstown, N.Y. to The Johnstown Cemetery Association by deed dated August 24, 1942, and recorded in the Fulton County Clerk's Office on March 31, 1943 in Liber 244 of Deeds at Page 512, said MAG Nail being on the reputed top of bank of Cayadutta Creek;

thence along the northerly line of The Johnstown Cemetery Association and along the reputed top of bank of Cayadutta Creek, the following 14 courses and distances:

1. South 50 degrees 06 minutes 33 seconds West a distance of 37.62 feet to a point;
2. South 39 degrees 06 minutes 43 seconds West a distance of 82.46 feet to a point;
3. South 34 degrees 21 minutes 21 seconds West a distance of 41.61 feet to a point;
4. South 38 degrees 57 minutes 59 seconds West a distance of 61.60 feet to a point;
5. South 50 degrees 43 minutes 03 seconds West a distance of 40.94 feet to a point;
6. South 27 degrees 06 minutes 00 seconds West a distance of 66.99 feet to a point;
7. South 51 degrees 41 minutes 01 seconds West a distance of 46.51 feet to a point;
8. South 61 degrees 18 minutes 59 seconds West a distance of 97.44 feet to a point;
9. South 71 degrees 18 minutes 10 seconds West a distance of 119.89 feet to a point;
10. South 59 degrees 43 minutes 59 seconds West a distance of 60.96 feet to a point;
11. South 58 degrees 54 minutes 15 seconds West a distance of 90.91 feet to a point;
12. South 56 degrees 56 minutes 56 seconds West a distance of 41.06 feet to a point;
13. South 49 degrees 19 minutes 24 seconds West a distance of 25.14 feet to a point;
14. South 43 degrees 14 minutes 29 seconds west a distance of 40.65 feet to a point;

thence South 88 degrees 41 minutes 18 seconds West a distance of 42.38 feet to a 5/8-inch rebar set on the easterly bounds of North Perry Street (66-foot width), said course passing over a 1/2-inch iron pipe (extends 0.8 feet above grade) found at a distance of 2.99 feet;

thence North 00 degrees 59 minutes 55 seconds West, along the easterly bounds of North Perry Street, a distance of 100.00 feet to a point at the southwesterly corner of a parcel of land conveyed by June A. Pasquarella to Vincent D. Johansen, Sr. by deed dated September 24, 1984 and recorded in the Fulton County Clerk's Office on October 1, 1984 in Liber 582 of Deeds at Page 1005, said point being North 68 degrees 12 minutes 59 seconds East a distance of 0.77 feet from a found 5/8-inch rebar (0.1 feet below grade);

thence North 68 degrees 12 minutes 59 seconds East, in part along the southerly line of Vincent D. Johansen, Sr. and in part along the southerly line of a parcel of land conveyed by Michael C. Gifford to the City of Johnstown by deed dated September 29, 1998 and recorded in the Fulton County Clerk's Office on October 6, 1998 in Liber 815 of Deeds at Page 122, a distance of 206.34 feet to a set 5/8-inch rebar;

thence North 15 degrees 53 minutes 32 seconds West, along the easterly line of the City of Johnstown, a distance of 108.24 feet to a 5/8-inch rebar set of the southerly bounds of East Fulton Street (40-foot width);

thence along the southerly, easterly, and northerly bounds of East Fulton Street, the following four courses and distances:

1. North 74 degrees 06 minutes 28 seconds East a distance of 91.22 feet to a set 5/8-inch rebar;
2. North 15 degrees 53 minutes 32 seconds West a distance of 40.00 feet to a set 5/8-inch rebar;
3. South 74 degrees 06 minutes 28 seconds West a distance of 142.21 feet to a set 5/8-inch rebar;
4. North 87 degrees 57 minutes 15 seconds West a distance of 18.31 feet to a 3/4-inch rebar (0.5 feet below grade) found on the easterly line of a parcel of land conveyed by Gillmore Oil Company, Inc. to J.H. Buhrmaster Co., Inc. by deed dated December 28, 1992 and recorded in the Fulton County Clerk's Office on December 29, 1992 in Liber 714 of Deeds at Page 193;

thence North 04 degrees 39 minutes 12 seconds East, along the easterly line of J.H. Buhrmaster Co., Inc., a distance of 102.50 to a set 5/8-inch rebar;

thence North 68 degrees 07 minutes 34 seconds East, in part along the easterly line of J.H. Buhrmaster Co., Inc., in part along the southerly line of a parcel of land conveyed by Dewey E. Frasier and June A. Frasier to Sandra M. Scott and Charles N. Lamphear by deed dated November 27, 1989 and recorded in the Fulton County Clerk's Office on February 19, 1992 in Liber 699 of Deeds at Page 103, and in part along the southerly line of a parcel of land conveyed by Joan Coon to James S. Lamphear by deed dated February 9, 2005 and recorded in the Fulton County Clerk's Office on February 9, 2005 in Liber 995 of Deeds at Page 333, a distance of 222.85 feet to a 5/8-inch rebar set at the southerly corner of a parcel of land conveyed by Anthony J. and Anna M. Valovic to Anthony J. III and Barbara H. Valovic by deed dated November 14, 1986 and recorded in the Fulton County Clerk's Office on November 20, 1986 in Liber 596 of Deeds at Page 7;

thence North 03 degrees 36 minutes 14 seconds East, along the easterly line of Anthony J. III and Barbara H. Valovic, a distance of 120.82 feet to a 5/8-inch rebar set at the southeasterly bounds of East Canal Street (20-foot width);

thence along the easterly and northerly bounds of East Canal Street, the following two courses and distances:

1. North 21 degrees 45 minutes 06 seconds West a distance of 20.00 feet to a set MAG Nail;
2. South 68 degrees 14 minutes 54 seconds West a distance of 67.91 feet to a MAG Nail set on the easterly line of a parcel of land conveyed by Gillmore Oil Company, Inc. to Jeffrey F. Lehner by deed dated December 21, 1992 and recorded in the Fulton County Clerk's Office on December 21, 1992 in Liber 714 of Deeds at Page 88;

thence along the easterly line of Jeffrey F. Lehner, the following two courses and distances:

1. North 80 degrees 48 minutes 26 seconds West a distance of 24.00 feet to a found 3/4-inch rebar (flush with grade);
2. North 59 degrees 01 minutes 22 seconds East a distance of 69.86 feet to a MAG Nail set at the southeasterly corner of a parcel of land conveyed by Nicholas C. Miller to Jan Keichline and Gail Miller by deed dated December 7, 2007 and recorded in the Fulton County Clerk's Office on December 12, 2007 in Liber 1092 of Deeds at Page 226;

thence North 62 degrees 57 minutes 31 seconds East along the easterly line of Jan Keichline and Gail Miller, a distance of 122.99 feet to 3/8-inch rebar (Extends 1.0 feet above grade) found at the southeasterly corner of a parcel of land conveyed by Kenneth and Lena Taddune to Robert F. and Joan D. Frenyea by deed dated May 15, 1971 and recorded in the Fulton County Clerk's Office on May 24, 1971 in Liber 512 of Deeds at Page 862;

thence North 14 degrees 44 minutes 17 seconds East, along the easterly line of Robert F. and Joan D. Frenyea a distance of 123.67 feet to a point on the southerly bounds of Crescendoe Street, said point being South 14 degrees 44 minutes 17 seconds West a distance of 1.27 feet from a found 1-inch iron pipe (flush with grade);

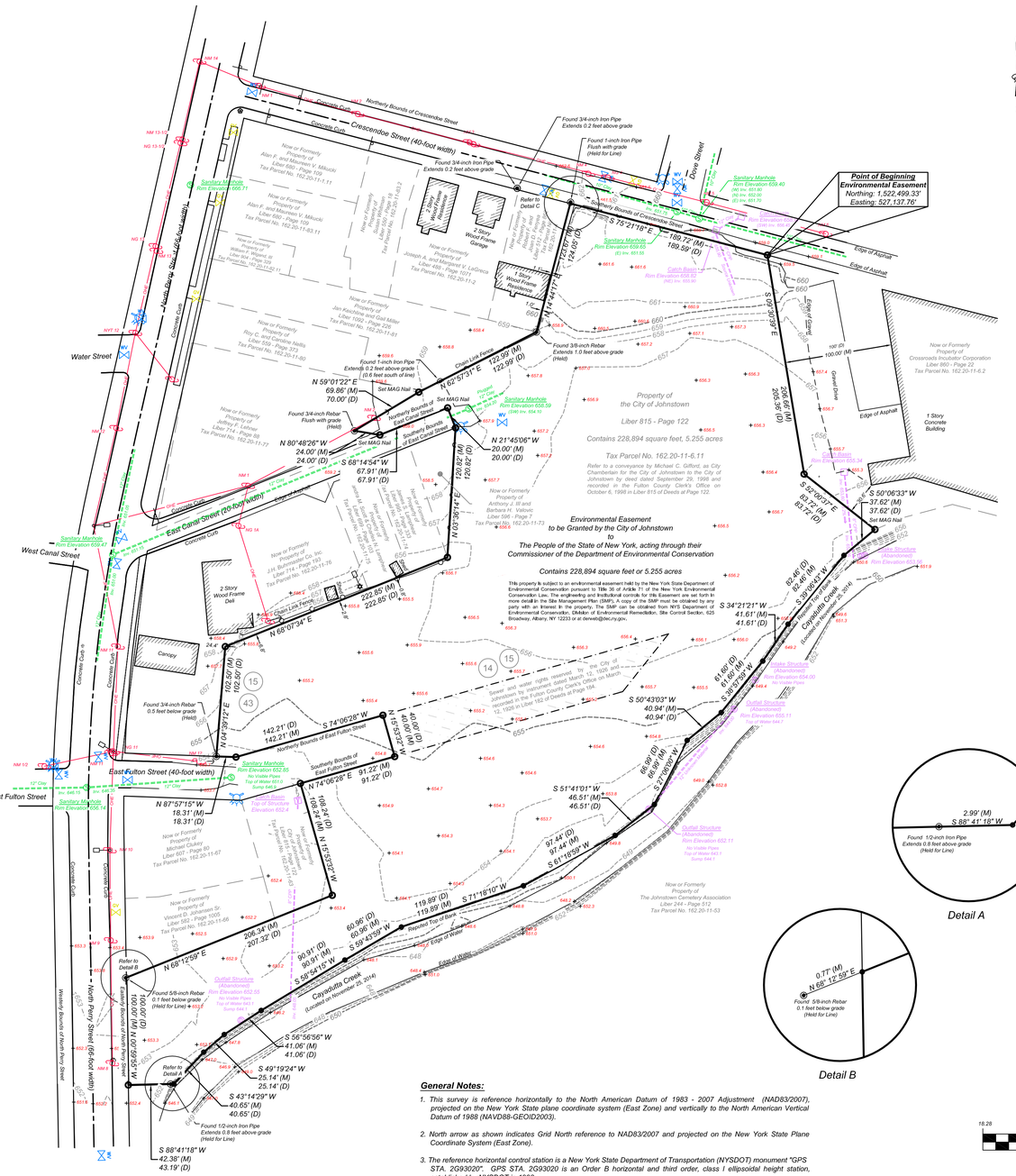
thence South 75 degrees 21 minutes 18 seconds East a distance of 189.72 feet to the **Point of Beginning.**

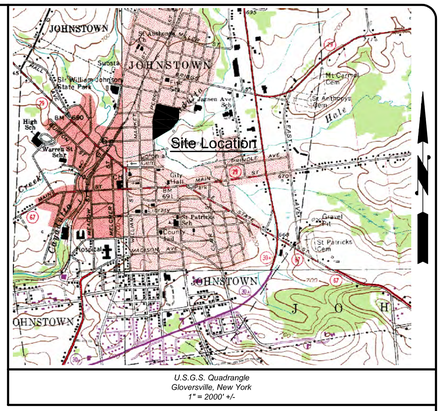
To contain 228,894 square feet or 5.255 acres of land, more or less.

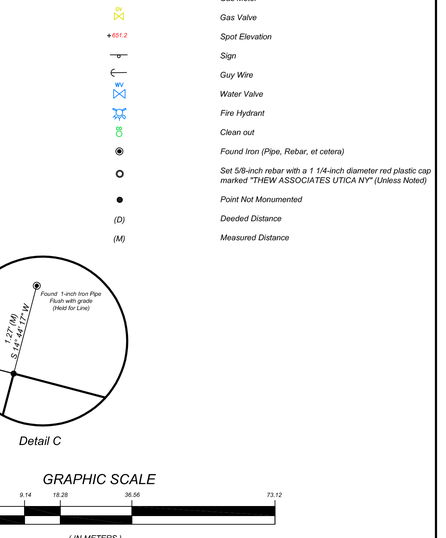
The above-described parcel of land is intended to be the same premises conveyed by Michael C. Gifford, as City Chamberlain for the City of Johnstown to the City of Johnstown by deed dated September 29, 1998 and recorded in the Fulton County Clerk's Office on October 6, 1998 in Liber 815 of Deeds at Page 122.

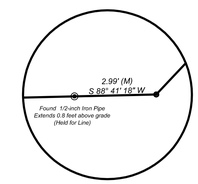
The above-mentioned coordinates, bearings, and distances are referenced to the North American Datum of 1983 - 2007 adjustment (NAD83/2007), projected on the New York State Plane Coordinate System (East Zone).

A map of the above-described parcel of land, dated June 25, 2015, was prepared by Thew Associates PE-LS, PLLC, and is distinguished as Drawing No. UK475-12-13.



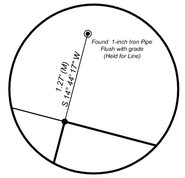






Detail A

Detail B



Detail C

General Notes:

1. *This survey is reference horizontally to the North American Datum of 1983 - 2007 Adjustment (NAD83/2007), projected on the New York State plane coordinate system (East Zone) and vertically to the North American Vertical Datum of 1988 (NAVD88-GEOID2003).*
2. *North arrow as shown indicates Grid North reference to NAD83/2007 and projected on the New York State Plane Coordinate System (East Zone).*
3. *The reference horizontal control station is a New York State Department of Transportation (NYSDOT) monument "GPS STA. 2G93020". GPS STA. 2G93020 is an Order B horizontal and third order, class I ellipsoidal height station, established by NYSDOT in 1993.*
4. *The reference benchmark is a United States Geological Survey (USGS) monument stamped "294 USGS". 294 USGS is a first order class II orthometric height station,established by the USGS. Elevation 293.76 feet.*
5. *Differential (RTK) GPS surveying techniques were utilized to establish horizontal and vertical control at the project site.*
6. *Subsurface utilities exist throughout the site, but have been intentionally omitted frpm this map, with the exception of the storm and sanitary infrastructure.*
7. *The information shown hereon is based on a field survey completed during the periodof September 1, 2010 through June 9, 2015.*
8. *Based on correspondence with Bruce E. Heberer, Chief of the Johnstown Fire Department, the dedicated street boundary widths are as follows:*
   1. *East Fulton Street: 50 feet*
   2. *East Canal Street: 30 feet*
   3. *North Perry Street: 66 feet*
   4. *Crescendoe Street: 50 feet*

   The street widths are inconsistant with record deeds and physical boundary evidence. It is the undersigned surveyor's opinion the record documents and physical boundary evidence should be relied on.

Referenced Drawings:

1. *"Map of Survey Lands of the City of Johnstown" dated November 15, 2005, and prepared by Steven E. Smith Engineers, Architecture & Surveying.*

GRAPHIC SCALE

18.28 0 9.14 18.28 36.56 73.12

(IN METERS)

1 inch = 18.28 meters

GRAPHIC SCALE

60 0 30 60 120 240

(IN FEET)

1 inch = 60 ft.

REV	DESCRIPTION	DATE

DRAWN: R.D.S.

CHECKED:

SCALE: 1" = 60'

DATE: 6/25/2015

PROJECT NUMBER: UK475-12-13

Environmental Easement Survey
Former Karg Brothers Tannery
Environmental Restoration Program
Site No. E518022

City of Johnstown
County of Fulton
State of New York

Thew Associates LAND SURVEYORS
www.ThewAssociates.com
P.O. Box 463, 6431 US Highway 11, Canton, New York 13617
T: 315/386-2776 F: 315/386-1012
9478 River Road, Marcy, New York 13403
T: 315/733-7278 F: 315/797-1907

APPENDIX C – ENVIRONMENTAL EASEMENT

FULTON COUNTY CLERK

ANN NICKLOY

Receipt

Receipt Date: 06/03/2016 02:14:53 PM
RECEIPT # 2016314304

Recording Clerk: LD
Cash Drawer: CASH1
Rec'd Frm: MICHAEL J POULIN, ESQ.

Instr#: 2016-38120
DOC: EASEMENT
DEED STAMP: 1536
OR Party: JOHNSTOWN CITY OF
EE Party: PEOPLE OF THE STATE OF NEW YORK

Recording Fees	
Cover Page	$5.00
Recording Fee	$75.00
Cultural Ed	$14.25
Records Management - County	$1.00
Records Management - State	$4.75
TP584	$5.00
Transfer Tax	
Transfer Tax	$0.00
DOCUMENT TOTAL: ---->	$105.00

Instr#: 2016-38121
DOC: DEED
DEED STAMP: 1537
OR Party: JOHNSTOWN CITY OF
EE Party: LAVOIE MICHAEL

Recording Fees	
Cover Page	$5.00
Recording Fee	$30.00
Cultural Ed	$14.25
Records Management - County	$1.00
Records Management - State	$4.75
TP584	$5.00
RP5217 - County	$9.00
RP5217 All others - State	$241.00
Transfer Tax	
Transfer Tax	$0.00
DOCUMENT TOTAL: ---->	$310.00

Receipt Summary

TOTAL RECEIPT: ---->	$415.00
TOTAL RECEIVED: ---->	$415.00
CASH BACK: ---->	$0.00

PAYMENTS

Check # 14251 ->	$312.00
Check # 14269 ->	$103.00

223 West Main Street, Johnstown, NY 12095 Phone (518) 736-5555 Fax (518) 762-9214

COPY

ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

FILED FULTON COUNTY CLERK'S OFFICE 2016 JUN -1 PM 2:16 RECEIVED

THIS INDENTURE made this 25th day of April, 2016 between Owner(s) City of Johnstown, having an office at 33-41 East Main Street, P.O. Box 160, Johnstown, New York 12095, County of Fulton, State of New York (the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

~~**WHEREAS,** the~~ Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

WHEREAS, Grantor, is the owner of real property located at the address of South Side of Crescendoe Road (having a mailing address of 126-222 North Perry Street) in the City of Johnstown, County of Fulton and State of New York, known and designated on the tax map of the County Clerk of Fulton as tax map parcel numbers: Section 162.20 Block 11 Lot 6.11, being the same as that property conveyed to Grantor by deed dated September 29, 1998 and recorded in the Fulton County Clerk's Office in Liber and Page 815/122. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 5.255 +/- acres, and is hereinafter more fully described in the Land Title Survey dated June 25, 2015 prepared by James S. Thew, LLS of Thew Associates, which will be attached to the Site Management Plan. The Controlled Property description is set forth in and attached hereto as Schedule A; and

WHEREAS, the Department accepts this Environmental Easement in order to ensure the protection of public health and the environment and to achieve the requirements for remediation established for the Controlled Property until such time as this Environmental Easement is

extinguished pursuant to ECL Article 71, Title 36; and

NOW THEREFORE, in consideration of the mutual covenants contained herein and the terms and conditions of State Assistance ContractNumber: C303712 as amended July 27, 2015, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement").

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

Restricted Residential as described in 6 NYCRR Part 375-1.8(g)(2)(ii), Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv)

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP;

(4) The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Fulton County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;

(5) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

(6) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;

(7) All future activities on the property that will disturb remaining

contaminated material must be conducted in accordance with the SMP;

(8) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;

(9) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP;

(10) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

B. The Controlled Property shall not be used for Residential purposes as defined in 6NYCRR 375-1.8(g)(2)(i), and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, New York 12233
Phone: (518) 402-9553

D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

E. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the Environmental Conservation

Law.

F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall, at such time as NYSDEC may require, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

(i) are in-place;

(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved by the NYSDEC and that all controls are in the Department-approved format; and

(iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5) the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and

(7) the information presented is accurate and complete.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against

the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to:

Site Number: E518022
Office of General Counsel
NYSDEC
625 Broadway
Albany New York 12233-5500

With a copy to:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, NY 12233

All notices and correspondence shall be delivered by hand, by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the

recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

Remainder of Page Intentionally Left Blank

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

City of Johnstown:

By: Michael B Jul

Print Name: Michael B. Julius

Title: Mayor Date: 2/26/2016

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF)

On the 26 day of Feb., in the year 20 16, before me, the undersigned, personally appeared Michael Julius, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Cathy A. Van Alstyne
Notary Public - State of New York

CATHY A. VAN ALSTYNE
Notary Public State of NY
01VA6065172
Resides in Fulton Co.
Commission Expires Oct. 9, 2016

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner,

By: _____
Robert W. Schick, Director
Division of Environmental Remediation

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF ALBANY)

On the 25TH day of APRIL, in the year 2016, before me, the undersigned, personally appeared Robert W. Schick, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

_____
Notary Public - State of New York

PATRICK EUGENE FOSTER
NOTARY PUBLIC, STATE OF NEW YORK
QUALIFIED IN KINGS COUNTY
NO. 02FO6278032
COMMISSION EXPIRES 03/18/2017

SCHEDULE "A" PROPERTY DESCRIPTION

All that tract or parcel of land situate in the City of Johnstown, County of Fulton, State of New York, and being more precisely described as follows:

Beginning at a 5/8-inch rebar with a 1 1/4-inch diameter red plastic cap marked "THEW ASSOCIATES - UTICA NY" (herein after referred to as a 5/8-inch rebar) set on the southerly bounds of Crescendoe Street (40-foot width), said rebar being at the northwesterly corner of a parcel of land conveyed by the City of Johnstown to the Crossroads Incubator Corp. by deed dated December 31, 1999 and recorded in the Fulton County Clerk's Office on May 26, 2000 in Liber 860 of Deeds at Page 22, said rebar having New York State plane coordinates (NAD83/2011 – East Zone) of 1,522,499.33 feet North and 527,137.76 feet East;

thence along the westerly line of Crossroads Incubator Corp., the following two courses and distances:

1. South 09 degrees 30 minutes 39 seconds East, parallel to and 100 feet distant westerly measured at right angles from the westerly building face of Crossroads Incubator Corp., a distance of 206.66 to a set 5/8-inch rebar;
2. South 52 degrees 00 minutes 37 seconds East a distance of 83.72 feet to a MAG Nail set on the northerly line of a parcel of land conveyed by The People's Bank of Johnstown, N.Y. to The Johnstown Cemetery Association by deed dated August 24, 1942, and recorded in the Fulton County Clerk's Office on March 31, 1943 in Liber 244 of Deeds at Page 512, said MAG Nail being on the reputed top of bank of Cayadutta Creek;

thence along the northerly line of The Johnstown Cemetery Association and along the reputed top of bank of Cayadutta Creek, the following 14 courses and distances:

1. South 50 degrees 06 minutes 33 seconds West a distance of 37.62 feet to a point;
2. South 39 degrees 06 minutes 43 seconds West a distance of 82.46 feet to a point;
3. South 34 degrees 21 minutes 21 seconds West a distance of 41.61 feet to a point;
4. South 38 degrees 57 minutes 59 seconds West a distance of 61.60 feet to a point;
5. South 50 degrees 43 minutes 03 seconds West a distance of 40.94 feet to a point;
6. South 27 degrees 06 minutes 00 seconds West a distance of 66.99 feet to a point;
7. South 51 degrees 41 minutes 01 seconds West a distance of 46.51 feet to a point;
8. South 61 degrees 18 minutes 59 seconds West a distance of 97.44 feet to a point;
9. South 71 degrees 18 minutes 10 seconds West a distance of 119.89 feet to a point;
10. South 59 degrees 43 minutes 59 seconds West a distance of 60.96 feet to a point;
11. South 58 degrees 54 minutes 15 seconds West a distance of 90.91 feet to a point;
12. South 56 degrees 56 minutes 56 seconds West a distance of 41.06 feet to a point;
13. South 49 degrees 19 minutes 24 seconds West a distance of 25.14 feet to a point;
14. South 43 degrees 14 minutes 29 seconds west a distance of 40.65 feet to a point;

thence South 88 degrees 41 minutes 18 seconds West a distance of 42.38 feet to a 5/8-inch rebar

set on the easterly bounds of North Perry Street (66-foot width), said course passing over a 1/2-inch iron pipe (extends 0.8 feet above grade) found at a distance of 2.99 feet;

thence North 00 degrees 59 minutes 55 seconds West, along the easterly bounds of North Perry Street, a distance of 100.00 feet to a point at the southwesterly corner of a parcel of land conveyed by June A. Pasquarella to Vincent D. Johansen, Sr. by deed dated September 24, 1984 and recorded in the Fulton County Clerk's Office on October 1, 1984 in Liber 582 of Deeds at Page 1005, said point being North 68 degrees 12 minutes 59 seconds East a distance of 0.77 feet from a found 5/8-inch rebar (0.1 feet below grade);

thence North 68 degrees 12 minutes 59 seconds East, in part along the southerly line of Vincent D. Johansen, Sr. and in part along the southerly line of a parcel of land conveyed by Michael C. Gifford to the City of Johnstown by deed dated September 29, 1998 and recorded in the Fulton County Clerk's Office on October 6, 1998 in Liber 815 of Deeds at Page 122, a distance of 206.34 feet to a set 5/8-inch rebar;

thence North 15 degrees 53 minutes 32 seconds West, along the easterly line of the City of Johnstown, a distance of 108.24 feet to a 5/8-inch rebar set of the southerly bounds of East Fulton Street (40-foot width);

thence along the southerly, easterly, and northerly bounds of East Fulton Street, the following four courses and distances:

1. North 74 degrees 06 minutes 28 seconds East a distance of 91.22 feet to a set 5/8-inch rebar;
2. North 15 degrees 53 minutes 32 seconds West a distance of 40.00 feet to a set 5/8-inch rebar;
3. South 74 degrees 06 minutes 28 seconds West a distance of 142.21 feet to a set 5/8-inch rebar;
4. North 87 degrees 57 minutes 15 seconds West a distance of 18.31 feet to a 3/4-inch rebar (0.5 feet below grade) found on the easterly line of a parcel of land conveyed by Gillmore Oil Company, Inc. to J.H. Buhrmaster Co., Inc. by deed dated December 28, 1992 and recorded in the Fulton County Clerk's Office on December 29, 1992 in Liber 714 of Deeds at Page 193;

thence North 04 degrees 39 minutes 12 seconds East, along the easterly line of J.H. Buhrmaster Co., Inc., a distance of 102.50 to a set 5/8-inch rebar;

thence North 68 degrees 07 minutes 34 seconds East, in part along the easterly line of J.H. Buhrmaster Co., Inc., in part along the southerly line of a parcel of land conveyed by Dewey E. Frasier and June A. Frasier to Sandra M. Scott and Charles N. Lamphear by deed dated November 27, 1989 and recorded in the Fulton County Clerk's Office on February 19, 1992 in Liber 699 of Deeds at Page 103, and in part along the southerly line of a parcel of land conveyed by Joan Coon to James S. Lamphear by deed dated February 9, 2005 and recorded in the Fulton County Clerk's Office on February 9, 2005 in Liber 995 of Deeds at Page 333, a distance of 222.85 feet to a 5/8-inch rebar set at the southerly corner of a parcel of land conveyed by Anthony J. and Anna M. Valovic to Anthony J. III and Barbara H. Valovic by deed dated November 14, 1986 and recorded in the Fulton County Clerk's Office on November 20, 1986 in Liber 596 of Deeds at Page 7;

thence North 03 degrees 36 minutes 14 seconds East, along the easterly line of Anthony J. III and Barbara H. Valovic, a distance of 120.82 feet to a 5/8-inch rebar set at the southeasterly bounds of East Canal Street (20-foot width);

thence along the easterly and northerly bounds of East Canal Street, the following two courses and

distances:

1. North 21 degrees 45 minutes 06 seconds West a distance of 20.00 feet to a set MAG Nail;
2. South 68 degrees 14 minutes 54 seconds West a distance of 67.91 feet to a MAG Nail set on the easterly line of a parcel of land conveyed by Gillmore Oil Company, Inc. to Jeffrey F. Lehner by deed dated December 21, 1992 and recorded in the Fulton County Clerk's Office on December 21, 1992 in Liber 714 of Deeds at Page 88;

thence along the easterly line of Jeffrey F. Lehner, the following two courses and distances:

1. North 80 degrees 48 minutes 26 seconds West a distance of 24.00 feet to a found 3/4-inch rebar (flush with grade);
2. North 59 degrees 01 minutes 22 seconds East a distance of 69.86 feet to a MAG Nail set at the southeasterly corner of a parcel of land conveyed by Nicholas C. Miller to Jan Keichline and Gail Miller by deed dated December 7, 2007 and recorded in the Fulton County Clerk's Office on December 12, 2007 in Liber 1092 of Deeds at Page 226;

thence North 62 degrees 57 minutes 31 seconds East along the easterly line of Jan Keichline and Gail Miller, a distance of 122.99 feet to 3/8-inch rebar (Extends 1.0 feet above grade) found at the southeasterly corner of a parcel of land conveyed by Kenneth and Lena Taddune to Robert F. and Joan D. Frenyea by deed dated May 15, 1971 and recorded in the Fulton County Clerk's Office on May 24, 1971 in Liber 512 of Deeds at Page 862;

thence North 14 degrees 44 minutes 17 seconds East, along the easterly line of Robert F. and Joan D. Frenyea a distance of 123.67 feet to a point on the southerly bounds of Crescendoe Street, said point being South 14 degrees 44 minutes 17 seconds West a distance of 1.27 feet from a found 1-inch iron pipe (flush with grade);

thence South 75 degrees 21 minutes 18 seconds East a distance of 189.72 feet to the **Point of Beginning.**

To contain 228,894 square feet or 5.255 acres of land, more or less.

The above-described parcel of land is intended to be the same premises conveyed by Michael C. Gifford, as City Chamberlain for the City of Johnstown to the City of Johnstown by deed dated September 29, 1998 and recorded in the Fulton County Clerk's Office on October 6, 1998 in Liber 815 of Deeds at Page 122.

The above-mentioned coordinates, bearings, and distances are referenced to the North American Datum of 1983 – 2007 adjustment (NAD83/2007), projected on the New York State Plane Coordinate System (East Zone).

A map of the above-described parcel of land, dated June 25, 2015, was prepared by Thew Associates PE-LS, PLLC, and is distinguished as Drawing No. UK475-12-13.

TP-584 (3/07)

New York State Department of Taxation and Finance

Combined Real Estate Transfer Tax Return, Credit Line Mortgage Certificate, and Certification of Exemption from the Payment of Estimated Personal Income Tax

Recording office time stamp

See Form TP-584-I, Instructions for Form TP-584, *before completing this form. Please print or type.*

Schedule A — Information relating to conveyance

Grantor/Transferor ☐ Individual ☐ Corporation ☐ Partnership ☐ Estate/Trust ☒ Other	Name *(if individual: last, first, middle initial)* City of Johnstown			Social security number
	Mailing address 33-41 East Main Street, PO Box 160			Social security number
	City Johnstown	State New York	ZIP code 12095	Federal employer ident. number 14-6002260
Grantee/Transferee ☐ Individual ☐ Corporation ☐ Partnership ☐ Estate/Trust ☒ Other	Name *(if individual: last, first, middle initial)* NYS Department of Environmental Conservation			Social security number
	Mailing address 625 Broadway			Social security number
	City Albany	State New York	ZIP code 12233	Federal employer ident. number 14-6013200

Location and description of property conveyed

Tax map designation			Address	City/village	Town	County
Section	Block	Lot				
162.20	11	6.11	Crescendoe Road	Johnstown	n/a	Fulton

Type of property conveyed *(check applicable box)*

1 ☐ One- to three-family house
2 ☐ Residential cooperative
3 ☐ Residential condominium
4 ☒ Vacant land
5 ☐ Commercial/Industrial
6 ☐ Apartment building
7 ☐ Office building
8 ☐ Other _____

Date of conveyance: 04 / 25 / 2014 (month / day / year)

Percentage of real property conveyed which is residential real property _____ % *(see instructions)*

Condition of conveyance *(check all that apply)*

a. ☐ Conveyance of fee interest
b. ☐ Acquisition of a controlling interest (state percentage acquired _____ %)
c. ☐ Transfer of a controlling interest (state percentage transferred _____ %)
d. ☐ Conveyance to cooperative housing corporation
e. ☐ Conveyance pursuant to or in lieu of foreclosure or enforcement of security interest *(attach Form TP-584.1, Schedule E)*
f. ☐ Conveyance which consists of a mere change of identify or form of ownership or organization *(attach Form TP-584.1, Schedule F)*
g. ☐ Conveyance for which credit for tax previously paid will be claimed *(attach Form TP-584.1, Schedule G)*
h. ☐ Conveyance of cooperative apartment(s)
i. ☐ Syndication
j. ☐ Conveyance of air rights or development rights
k. ☐ Contract assignment
l. ☐ Option assignment or surrender
m. ☐ Leasehold assignment or surrender
n. ☐ Leasehold grant
o. ☒ Conveyance of an easement
p. ☐ Conveyance for which exemption from transfer tax claimed *(complete Schedule B, Part III)*
q. ☐ Conveyance of property partly within and partly outside the state
r. ☐ Other *(describe)* _____

For recording officer's use	Amount received Schedule B., Part I $ Schedule B., Part II $	Date received	Transaction number

Schedule B — Real estate transfer tax return (Tax Law, Article 31)

Part I – Computation of tax due

1	Enter amount of consideration for the conveyance *(if you are claiming a total exemption from tax, check the exemption claimed box, enter consideration and proceed to Part III)* ☒ **Exemption claimed**	1.
2	Continuing lien deduction *(see instructions if property is taken subject to mortgage or lien)*	2.
3	Taxable consideration *(subtract line 2 from line 1)*	3.
4	Tax: $2 for each $500, or fractional part thereof, of consideration on line 3	4.
5	Amount of credit claimed *(see instructions and attach Form TP-584.1,* Schedule G*)*	5.
6	Total tax due* *(subtract line 5 from line 4)*	6.

Part II – Computation of additional tax due on the conveyance of residential real property for $1 million or more

1	Enter amount of consideration for conveyance *(from* Part I*, line 1)*	1.
2	Taxable consideration *(multiply line 1 by the percentage of the premises which is residential real property, as shown in* Schedule A*)*	2.
3	Total additional transfer tax due* *(multiply line 2 by 1% (.01))*	3.

Part III – Explanation of exemption claimed on Part I, line 1 *(check any boxes that apply)*

The conveyance of real property is exempt from the real estate transfer tax for the following reason:

a. Conveyance is to the United Nations, the United States of America, the state of New York, or any of their instrumentalities, agencies, or political subdivisions (or any public corporation, including a public corporation created pursuant to agreement or compact with another state or Canada) ..... a ☒

b. Conveyance is to secure a debt or other obligation ..... b ☐

c. Conveyance is without additional consideration to confirm, correct, modify, or supplement a prior conveyance ..... c ☐

d. Conveyance of real property is without consideration and not in connection with a sale, including conveyances conveying realty as bona fide gifts ..... d ☐

e. Conveyance is given in connection with a tax sale ..... e ☐

f. Conveyance is a mere change of identity or form of ownership or organization where there is no change in beneficial ownership. (This exemption cannot be claimed for a conveyance to a cooperative housing corporation of real property comprising the cooperative dwelling or dwellings.) Attach Form TP-584.1, Schedule F ..... f ☐

g. Conveyance consists of deed of partition ..... g ☐

h. Conveyance is given pursuant to the federal Bankruptcy Act ..... h ☐

i. Conveyance consists of the execution of a contract to sell real property, without the use or occupancy of such property, or the granting of an option to purchase real property, without the use or occupancy of such property ..... i ☐

j. Conveyance of an option or contract to purchase real property with the use or occupancy of such property where the consideration is less than $200,000 and such property was used solely by the grantor as the grantor's personal residence and consists of a one-, two-, or three-family house, an individual residential condominium unit, or the sale of stock in a cooperative housing corporation in connection with the grant or transfer of a proprietary leasehold covering an individual residential cooperative apartment ..... j ☐

k. Conveyance is not a conveyance within the meaning of Tax Law, Article 31, section 1401(e) *(attach documents supporting such claim)* ..... k ☐

l. Other *(attach explanation)* ..... l ☐

*Please make check(s) payable to the county clerk where the recording is to take place. If the recording is to take place in New York City, make check(s) payable to the ***NYC Department of Finance.*** If a recording is not required, send this return and your check(s) made payable to the ***NYS Department of Taxation and Finance***, directly to the NYS Tax Department, RETT Return Processing, PO Box 5045, Albany NY 12205-5045.

Schedule C — Credit Line Mortgage Certificate (Tax Law, Article 11)

Complete the following only if the interest being transferred is a fee simple interest.
I (we) certify that: *(check the appropriate box)*

1. ☒ The real property being sold or transferred is not subject to an outstanding credit line mortgage.

2. ☐ The real property being sold or transferred is subject to an outstanding credit line mortgage. However, an exemption from the tax is claimed for the following reason:
   - ☐ The transfer of real property is a transfer of a fee simple interest to a person or persons who held a fee simple interest in the real property (whether as a joint tenant, a tenant in common or otherwise) immediately before the transfer.
   - ☐ The transfer of real property is (A) to a person or persons related by blood, marriage or adoption to the original obligor or to one or more of the original obligors or (B) to a person or entity where 50% or more of the beneficial interest in such real property after the transfer is held by the transferor or such related person or persons (as in the case of a transfer to a trustee for the benefit of a minor or the transfer to a trust for the benefit of the transferor).
   - ☐ The transfer of real property is a transfer to a trustee in bankruptcy, a receiver, assignee, or other officer of a court.
   - ☐ The maximum principal amount secured by the credit line mortgage is $3,000,000 or more, and the real property being sold or transferred is **not** principally improved nor will it be improved by a one- to six-family owner-occupied residence or dwelling.

     Please note: for purposes of determining whether the maximum principal amount secured is $3,000,000 or more as described above, the amounts secured by two or more credit line mortgages may be aggregated under certain circumstances. See TSB-M-96(6)-R for more information regarding these aggregation requirements.
   - ☐ Other *(attach detailed explanation)*.

3. ☐ The real property being transferred is presently subject to an outstanding credit line mortgage. However, no tax is due for the following reason:
   - ☐ A certificate of discharge of the credit line mortgage is being offered at the time of recording the deed.
   - ☐ A check has been drawn payable for transmission to the credit line mortgagee or his agent for the balance due, and a satisfaction of such mortgage will be recorded as soon as it is available.

4. ☐ The real property being transferred is subject to an outstanding credit line mortgage recorded in _____ (insert liber and page or reel or other identification of the mortgage). The maximum principal amount of debt or obligation secured by the mortgage is _____. No exemption from tax is claimed and the tax of _____ is being paid herewith. *(Make check payable to county clerk where deed will be recorded or, if the recording is to take place in New York City, make check payable to the **NYC Department of Finance.**)*

Signature (both the grantor(s) and grantee(s) must sign)

The undersigned certify that the above information contained in schedules A, B, and C, including any return, certification, schedule, or attachment, is to the best of his/her knowledge, true and complete, and authorize the person(s) submitting such form on their behalf to receive a copy for purposes of recording the deed or other instrument effecting the conveyance.

Grantor signature	Title	Grantee signature	Title
[signature]	Mayor	[signature] Andrew Grieglielmi	Attorney

Reminder: Did you complete all of the required information in Schedules A, B, and C? Are you required to complete Schedule D? If you checked *e*, *f*, or *g* in Schedule A, did you complete Form TP-584.1? Have you attached your check(s) made payable to the county clerk where recording will take place or, if the recording is in New York City, to the ***NYC Department of Finance***? If no recording is required, send your check(s), made payable to the ***Department of Taxation and Finance,*** directly to the NYS Tax Department, RETT Return Processing, PO Box 5045, Albany NY 12205-5045.

Schedule D - Certification of exemption from the payment of estimated personal income tax (Tax Law, Article 22, section 663)

Complete the following only if a fee simple interest or a cooperative unit is being transferred by an individual or estate or trust.

Part I - New York State residents

If you are a New York State resident transferor(s)/seller(s) listed in Schedule A of Form TP-584 (or an attachment to Form TP-584), you must sign the certification below. If one or more transferors/sellers of the real property or cooperative unit is a resident of New York State, **each** resident transferor/seller must sign in the space provided. If more space is needed, please photocopy this Schedule D and submit as many schedules as necessary to accommodate all resident transferors/sellers.

Certification of resident transferor(s)/seller(s)

This is to certify that at the time of the sale or transfer of the real property or cooperative unit, the transferor(s)/seller(s) as signed below was a resident of New York State, and therefore is not required to pay estimated personal income tax under Tax Law, section 663(a) upon the sale or transfer of this real property or cooperative unit.

Signature	Print full name	Date
Michael B. Julius	Michael B. Julius, Mayor	9/28/15
Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date

Note: A resident of New York State may still be required to pay estimated tax under Tax Law, section 685(c), but not as a condition of recording a deed.

Part II - Nonresidents of New York State

If you are a nonresident of New York State listed as a transferor/seller in Schedule A of Form TP-584 (or an attachment to Form TP-584) but are not required to pay estimated personal income tax because one of the exemptions below applies under Tax Law, section 663(c), check the box of the appropriate exemption below. If any one of the exemptions below applies to the transferor(s)/seller(s), that transferor(s)/seller(s) is not required to pay estimated personal income tax to New York State under Tax Law, section 663. **Each** nonresident transferor/seller who qualifies under one of the exemptions below must sign in the space provided. If more space is needed, please photocopy this Schedule D and submit as many schedules as necessary to accommodate all nonresident transferors/sellers.

If none of these exemption statements apply, you must complete Form IT-2663, *Nonresident Real Property Estimated Income Tax Payment Form*, or Form IT-2664, *Nonresident Cooperative Unit Estimated Income Tax Payment Form*. For more information, see *Payment of estimated personal income tax*, on page 1 of Form TP-584-I.

Exemption for nonresident transferor(s)/seller(s)

This is to certify that at the time of the sale or transfer of the real property or cooperative unit, the transferor(s)/seller(s) (grantor) of this real property or cooperative unit was a nonresident of New York State, but is not required to pay estimated personal income tax under Tax Law, section 663 due to one of the following exemptions:

☐ The real property or cooperative unit being sold or transferred qualifies in total as the transferor's/seller's principal residence (within the meaning of Internal Revenue Code, section 121) from _____ (Date) to _____ (Date) *(see instructions)*.

☐ The transferor/seller is a mortgagor conveying the mortgaged property to a mortgagee in foreclosure, or in lieu of foreclosure with no additional consideration.

☐ The transferor or transferee is an agency or authority of the United States of America, an agency or authority of the state of New York, the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, the Government National Mortgage Association, or a private mortgage insurance company.

Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date

APPENDIX D – HEALTH AND SAFETY PLAN / COMMUNITY AIR MONITORING PLAN

City of Johnstown

Johnstown, New York

FORMER KARG BROTHERS TANNERY
JOHNSTOWN, NEW YORK

Site Management Plan
Appendix D:
Generic Health & Safety Plan & Community Air Monitoring Plan for Subsurface Work

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ENVIRONMENTAL RESTORATION PROGRAM
PROJECT # E518022

June 2015

Prepared By:

ARCADIS U.S., Inc.

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ARCADIS
Infrastructure · Water · Environment · Buildings

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1. Introduction

1.1. Objective

This Generic Health and Safety Plan (HASP) has been prepared as a generic appendix to the Site Management Plan (SMP) for future subsurface work that will encounter residual contamination at the site. The purpose of this document is to provide hazard information and minimum Health and Safety protocols and procedures that will be implemented during subsurface work activities to promote worker safety and protect the general public.

The following topics are presented and discussed in this Generic HASP:

- Organizational roles and responsibilities;
- Analysis of potential risks associated with subsurface work;
- General overview of safety practices and programs;
- Discussion of site control procedures, including decontamination and site monitoring; and,
- Contingency plans.

2. Roles and Responsibilities

2.1. City of Johnstown

In the event of subsurface construction work or utility access for repairs or upgrades, the City will provide this SMP and HASP to all applicable contractors and subcontractors to ensure that appropriate soil management and health and safety protocols are followed to prevent human exposure to residual petroleum contamination at the site.

2.2. Subcontractors

Subcontractors for any future subsurface work at the site will be required to read, understand, and conform to the policies, requirements, and information presented in this Generic HASP and Appendices, including:

- Following the guidelines for personal protective equipment (PPE), engineering controls, and work practices identified in the Generic HASP and subcontractor's HASP;
- Understand and comply with 29 Code of Federal Regulations (CFR) Part 1910 and 1926 rules and regulations as applicable to the tasks the subcontractor will be performing;
- Notify the City of identified or potential safety or health hazards, emergencies, or injuries;
- Comply with applicable OSHA and/or New York State training and medical surveillance requirements.
- Comply with the SMP.

Subcontractors shall be solely responsible for the health and safety of their employees and shall comply with all applicable laws and regulations. In accordance with 1910.120(b)(1)(iv) and (v), the City will inform subcontractors of the site emergency response procedures, and any potential fire, explosion, health, safety or other hazards by making this Generic HASP and site information obtained by others available during regular business hours. All contractors and subcontractors are responsible for:

1. Developing their own Health and Safety Plan, including a written Hazard Communication Program and any other written hazard specific or safety programs

required by federal, state and local laws and regulations, that details subcontractor tasks, potential or actual hazards identified as a result of a risk analysis of those tasks, and the engineering controls, work practices and personal protective equipment to be utilized to minimize or eliminate employee exposure to the hazard;

2. Providing their own personal protective equipment;

3. Providing documentation that their employees have been health and safety trained in accordance with applicable federal, state and local laws and regulations;

4. Providing evidence of medical surveillance and medical approvals for their employees; and

5. The contractor and/or subcontractor shall designate their own Site Safety Officer (SSO). The subcontractor SSO is responsible for ensuring that their employees comply with their own specific HASP and taking any other additional measures required by the SMP.

Providing a copy of this Generic HASP and Appendices to subcontractors does not establish, nor is it intended to establish, a "joint employer" relationship between the Contractor and ARCADIS U.S., Inc. This allowance does not establish, nor is it intended to establish, a direct or indirect employer/employee relationship with subcontractor's employees.

3. Site Information, Hazards, and Control

3.1. Nature of Contamination and Exposure Pathway

Following the conclusion of Interim Remedial Measure (IRM) activities, metals-impacted soil (generally within the upper four to five feet of subsurface soil) was left in place below either pre-existing concrete and asphalt, or an orange construction fencing demarcation layer and at least two feet of clean soil. Given the absence of buildings on the site, direct contact, ingestion, or inhalation of metals from subsurface soil during future construction work and/or utility access and repairs remains the only potential human exposure pathway to the residual contamination.

3.2. Emergency Information

Local emergency information is provided in Table 1. Hospital directions are provided in Figure 1.

Table 1.
Emergency Information

Local Resources	Service Name	Telephone Number
Emergency Medical Services	Johnstown Ambulance Service	Emergency 911
Hospital (see attached map)	Nathan Littauer Hospital	Emergency 911
Fire Department	Johnstown Fire Department	Emergency 911
Police/Security	Johnstown Police Department	Emergency 911
Hazmat/Spill/Other Response	Johnstown Fire Department	Emergency 911

3.3. Hazard Analysis

Potential chemical exposure during future subsurface work from the residual contamination would be to metals, primarily arsenic, chromium, copper, lead, and mercury in soil at concentrations estimated up to 1,920 parts per million (ppm). The lowest permissible exposure limits for these compounds for an 8-hour time weighted average are approximately 10 micrograms per meters cubed (ug/m3) to 1 milligram per meter cubed (mg/m3), depending on the compound. During routine excavation and utility access, the route of exposure would be contact with contaminated soil. However, the potential for contact is low and will be controlled through the use of appropriate PPE and work practices.

3.4. Safety Procedures and Site Control Measures

3.4.1. Work Zones

The contractor or subcontractor's SSO will coordinate access control and security for subsurface work at the site. A safe perimeter will be established at the boundary of any excavation and/or safe distance from excavators and other heavy equipment. These boundaries will be identified by safety cones, caution tape, and or temporary fencing.

3.4.2. Environmental Monitoring

Given the potential for exposure of the residual soil contamination, and to confirm that work activities do not generate airborne contaminants, VOCs and particulate matter (dust) will be monitored on a continuous basis during all ground-intrusive activities. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions. VOC monitoring will be conducted using a MiniRae 2000 photoionization detector (PID). The PID will be calibrated at least daily using the span calibration gas recommended by the manufacturer. The PID will calculate 15-minute running average concentrations. These averages will be compared to the action levels specified below. 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) will be used for the particulate monitoring. The equipment will be equipped with an audible alarm to indicate exceedance of the action levels summarized below. Any fugitive dust migration will also be visually assessed during all work activities.

Action Levels - VOCs

- 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 will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities will 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 will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will 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, all work activities will be stopped.

Action Levels – Particulate Matter

- If the downwind PM-10 particulate level is 0.1 milligrams per cubic meter (mg/m3) 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 will continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 0.15 mg/m3 above the upwind level and provided that no visible dust is migrating from the work area.

- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 0.15 mg/m3 above the upwind level, work will be stopped and a re-evaluation of activities initiated. Work will resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 0.15 mg/m3 of the upwind level and in preventing visible dust migration.

All 15-minute average readings will be recorded and be available for review by the New York State Department of Environmental Conservation (NYSDEC) or the NYS Department of Health (NYSDOH). Instantaneous readings, if any, used for decision purposes will also be recorded.

Source: Mapquest.com

MALCOLM PIRNIE

FORMER KARG BROTHERS TANNERY ERP
JOHNSTOWN, NEW YORK

RI/AA WORK PLAN

HOSPITAL ROUTE

FIGURE 1

Directions from Karg Brothers Site, Johnstown, NY to Nathan Littauer Hospital, Gloversville, NY

1: Start out going NORTH on N PERRY ST. 0.2 mi

2: Turn RIGHT onto BRIGGS ST. 0.5 mi

3: Turn LEFT onto N COMRIE AVE/ NY-30A/ MAYOR HARVEY W MANSFIELD HWY. Continue to follow NY-30A. 4.8 mi

4: Turn LEFT onto E STATE ST. 0.2 mi

6: End at Nathan Littauer Hospital 90 E State St Gloversville, NY 12078

Estimated Time: 9 minutes Estimated Distance: 5.79 miles

COMMUNITY AIR MONITORING PLAN
REMEDIAL INVESTIGATION/ALTERNATIVES ANALYSIS
FORMER KARG BROTHERS TANNERY,
JOHNSTOWN, NEW YORK

To provide a measure of protection for any potential downwind receptors, and to confirm that work activities do not generate airborne contaminants, Malcolm Pirnie will conduct continuous monitoring for volatile organic compounds (VOCs) and particulate matter (dust) during all ground intrusive activities at the site. Monitoring will be conducted at the upwind and downwind perimeters of each work area.

VOC MONITORING, RESPONSE LEVELS, AND ACTIONS

Volatile organic compounds (VOCs) will be monitored on a continuous basis during drilling activities. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions. VOC monitoring will be conducted using a MiniRae 2000 photoionization detector (PID). The PID will be calibrated at least daily using the span calibration gas recommended by the manufacturer. The PID will calculate 15-minute running average concentrations. These averages will be compared to the action levels specified below.

Action Levels

- 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 will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities will 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 will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will 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, all work activities will be stopped.

All 15-minute average readings will be recorded and be available for review by the New York State Department of Environmental Conservation (NYSDEC) or the NYS Department of Health (DOH). Instantaneous readings, if any, used for decision purposes will also be recorded.

PARTICULATE MONITORING, RESPONSE LEVELS, AND ACTIONS

Particulate concentrations will be monitored continuously at the upwind and downwind perimeter of the each work area during all ground intrusive activities. 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) will be used for the particulate monitoring. The equipment will be equipped with an audible alarm to indicate exceedance of the action levels summarized below. Any fugitive dust migration will also be visually assessed during all work activities.

Action Levels

- If the downwind PM-10 particulate level is 0.1 milligrams per cubic meter (mg/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 will continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 0.15 mg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 0.15 mg/m^3 above the upwind level, work will be stopped and a re-evaluation of activities initiated. Work will resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 0.15 mg/m^3 of the upwind level and in preventing visible dust migration.

All particulate monitoring measurements readings will be recorded and made available for NYSDEC and NYSDOH review.

APPENDIX E – SITE-WIDE INSPECTION FORM

SITE INSPECTION FORM

Former Karg Brothers Tannery, Johnstown, New York

Date: _____

Weather: _____

Inspector: _____

Checklist

A. Soil Cover

The soil cover area was inspected by walking the site and examining for the following:

		No	Yes
1.	Is there bare, dead or damaged grassed area?		
2.	Is the orange demarcation layer visible?		
3.	Is there evidence of settlement?		
4.	Is there evidence of burrowing by animals?		
5.	Is there any erosion?		

Comments: *(Required for each Yes answer)*

_____

_____

_____

B. Site Drainage

The drainage system was inspected by walking the site and examining for the following:

		No	Yes
1.	Is there erosion in drainage swales?		
2.	Is there debris in drainage swales?		
3.	Is there sediment in drainage swales?		
4.	Is there evidence of ponding water?		

Comments (Site Drainage): *(Required for each Yes answer)*

_____

_____

C. Asphalt Cap

The asphalt cap on East Canal Street was inspected by walking the area and examining for the following:

	No	Yes
1. Is there damage to the asphalt cap?		
2. Is there cracks/erosion in the asphalt?		
3. Is there evidence of ponding water?		

Sketch site below and show any identified areas of concern.

Signed: _____ Date: _____