New York State Department of Environmental Conservation
Office of Environmental Quality, Region 4
1130 North Westcott Road, Schenectady, New York 12306-2014
Phone: (518) 357-2045 • **Fax:** (518) 357-2398
Website: www.dec.ny.gov

Joe Martens
Commissioner

March 4, 2013

Maxon ALCO Holdings, LLC
Attn: David Buicko
695 Rotterdam Industrial Park
Schenectady, NY 12306

Re: ALCO-Maxon, BCP Site C447044, Parcel C, Schenectady
Addendum to Supplemental Remedial Investigation Work Plan

Dear Mr. Buicko:

The New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) have reviewed the Addendum to the Supplemental Remedial Investigation Work Plan (SRI Work Plan) for the ALCO-Maxon Site Parcel C. The Addendum details an Alternative Procedure to determine the number and location of the soil vapor intrusion sampling requested in Parcel C Buildings 300, 306 and 330.

The NYSDEC and NYSDOH hereby approve the Addendum to the SRI Work Plan for Parcel C. This Addendum approval letter, the Addendum to the SRI Work Plan (02/08/2013), and the NYSDEC-NYSDOH SRI Work Plan Comment letter (02/06/2013) are to be included as part of the approved SRI Work Plan for all three ALCO-Maxon Parcels.

Please provide the NYSDEC and NYSDOH a list of possible dates to tour the buildings. I may be reached at (518) 357-2390 with any questions.

Sincerely,

John R Strang

John R. Strang, P.E.
Environmental Engineer 2
Division of Environmental Remediation
Region 4

ec: S. Porter, Galesi
D. Sommer, Young, Sommer
S. Luciano, Galesi
A. Barber, Barton & Loguidice
A. DeMarco, NYSDOH
R. Swider, CDR-DOH
A. Suflita, SC-DOH
R. Cozzy, NYSDEC
B. Conlon, NYSDEC – OGC
R. Quail, NYSDEC - FWMR
C. Gosier, NYSDEC - FWMR
R. Ostrov, NYSDEC Reg. 4
J. Quinn, NYSDEC, Reg. 4

JS:jw c447044.2013-03-04.DEC-DOH_approval_Addendum-to-SRI_W

Former ALCO Site BCP Site C447044

Addendum to Supplemental Remedial Investigation Work Plan

Alternative Procedure for Determining Number and Location of Soil Vapor Intrusion Samples

As part of the Supplemental Remedial Investigation (SRI) at the former ALCO site, Soil Vapor Intrusion (SVI) sampling was proposed in Section 2.5 of the SRI work plan. Documents requested by NYSDEC in their work plan approval letter of 2/6/13 (floor plans, layouts, etc.) for Buildings 300, 306 and 330 are not in possession of Maxon ALCO Holdings, LLC. These documents were requested in support of preparation of SVI sampling plans for these three buildings.

As an alternative, consultants representing Maxon ALCO Holdings, LLC will meet with representatives of NYSDEC and NYSDOH at a mutually convenient time to tour the three buildings to replace, to the extent possible, the requested building information. If feasible, knowledgeable personnel (e.g. – employees of current building tenants) will be present during the building tours to help answer questions. The number of SVI samples and their respective locations will be determined in consultation with NYSDEC and NYSDOH, following the tour of the buildings.

The collection of the SVI samples will be performed within one week of the building tour. Sample collection will follow the protocol provided in the approved SRI work plan, unless modifications are requested by NYSDEC and/or NYSDOH. Collection of sub-slab samples and indoor air samples will be concurrent for each building.

MAXON ALCO HOLDINGS, LLC

695 Rotterdam Industrial Park
Schenectady, NY 12306
(518) 465-1565

February 8, 2013

Mr. John R. Strang, P.E.
Environmental Engineer 2
Region 4
New York State Department of Environmental Conservation
1130 South Westcott Road
Schenectady, New York 12306-2014

Re: ALCO – BCP Sites C447042, C447043 and C447044
Schenectady, New York
Supplemental Remedial Investigation

Dear Mr. Strang,

Per your letter of February 6, 2013, please consider this letter as an affirmative response from Maxon ALCO Holdings LLC regarding the Soil Vapor Intrusion (SVI) work. Andy Barber of Barton & Loguidice indicated that he has discussed with you the fact that we do not possess the information requested in your letter for the three buildings. Attached is a proposed alternate method prepared by Andy for selecting the number and locations of the SVI samples. Please let us know if this method is acceptable.

Sincerely,

Maxon ALCO Holdings, LLC

Stephen M. Luciano
Property Manager

New York State Department of Environmental Conservation
Office of Environmental Quality, Region 4
1130 North Westcott Road, Schenectady, New York 12306-2014
Phone: (518) 357-2045 • **Fax:** (518) 357-2398
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Joe Martens
Commissioner

February 6, 2013

Maxon ALCO Holdings, LLC
Attn: David Buicko
695 Rotterdam Industrial Park
Schenectady, NY 12306

Re: ALCO-Maxon, BCP Sites C447042, C447043, C447044, Schenectady
Supplemental Remedial Investigation Work Plan Comments

Dear Mr. Buicko:

The New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) have reviewed the Supplemental Remedial Investigation Work Plan (SRI WP) for the ALCO-Maxon Site Parcels. The purpose of the SRI WP is to provide the NYSDEC and NYSDOH the planned procedures for conducting the work requested in the 12/14/12 NYSDEC RI comment letter. We provide the following comments for each Parcel:

Parcel A

- Section 2.2 Chlorinated Solvent Delineation (AOC 2)
  The NYSDEC concurs with the installation of the two monitoring wells planned for Parcel A. The NYSDEC prefers the installed wells be 2-inch diameter wells.
- Section 2.3 MW-45 Area LNAPL Investigation (AOC 1B)
  The NYSDEC concurs with the installation of the three monitoring wells planned for this location in Parcel A. The NYSDEC prefers the installed wells be 2-inch diameter wells.

Parcel B

- Section 2.2 Chlorinated Solvent Delineation (AOC 2)
  The NYSDEC concurs with the installation of the two monitoring wells planned for Parcel B. The NYSDEC prefers the installed wells be 2-inch diameter wells.
- Section 2.4 Follow-up Investigation on Geophysical Survey Results
  GPR Area 2 and GPR Area 6 are located in Parcel B. The NYSDEC concurs with the investigation work stated in the Work Plan.
- Section 2.6 Installation of Three Monitoring Wells Between Buildings 306-320
  The NYSDEC concurs with the installation of the three monitoring wells planned for this location in Parcel B. The NYSDEC prefers the installed wells be 2-inch diameter wells.
- Section 2.7 Impacts of Building 308 Trench
  The NYSDEC concurs with the investigation work stated in the Work Plan.

Parcel C

- Section 2.1 Chlorinated Solvent Plume Source Investigation (AOC 2)
  The NYSDEC concurs with the investigation field work stated in the Work Plan at the SV-C9 and MW-19 location.
- Section 2.4 Follow-up Investigation on Geophysical Survey Results
  GPR Area 8 is located in Parcel C. The NYSDEC concurs with the investigation work stated in the Work Plan.
- Section 2.5 Soil Vapor Intrusion Sampling (for Building 300, 306 and 330)
  Currently the NYSDEC and NYSDOH do not have enough information to make a final determination as to whether the proposed number of samples is adequate or not. A SVI Sampling Plan is to be developed for each Building and is to include: the layout, the use and length of time each building is occupied, and the structural information of the building. The future sample locations and collection times will then be decided in consultation with the NYSDOH. The soil vapor intrusion evaluation should be conducted with the collection of concurrent sub-slab and indoor air samples. The proposed number of samples in the Work Plan is not likely to be suffient.
- Section 2.8 Borings in the MW-36 Area (AOC 1A)
  The NYSDEC concurs with the investigation work for this location, stated in the Work Plan.

With an affirmative response from Maxon ALCO Holdings, LLC to the submittal of soil vapor intrusion work plans for Buildings 300, 306 and 330 for review and approval by the NYSDEC and the NYSDOH, we then approve the Supplemental Remedial Investigation Work Plan (enclosed) for all ALCO-Maxon Parcels. Please contact this office at (518) 357-2390 with any questions.

Sincerely,

John R Strang

John R. Strang, P.E.
Environmental Engineer 2
Division of Environmental Remediation
Region 4

Enclosure

ec: S. Porter, Galesi
D. Sommer, Young, Sommer
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A. DeMarco, NYSDOH
D. Croswell, CDR-DOH
A. Suflita, SC-DOH
R. Cozzy, NYSDEC
B. Conlon, NYSDEC – OGC
R. Quail, NYSDEC - FWMR
C. Gosier, NYSDEC - FWMR
R. Ostrov, NYSDEC Reg. 4
K. Goertz, NYSDEC Reg. 4

JS:jw letter.c447042.2013-02-06.DEC-DOH_comments_on_SRI_WP

Former ALCO Site
Brownfield Cleanup Project

City of Schenectady
Schenectady County, New York

Supplemental Remedial Investigation Work Plan (SRI-WP)

New York State
Brownfield Cleanup Program
Site Nos. C447042, C447043, and C447044

January 2013

Barton & Loguidice

Former ALCO Site
Brownfield Cleanup Project

City of Schenectady

Supplemental Remedial Investigation Work Plan
Site Nos. C447042, C447043, and C447044

January 2013

Prepared For:

Maxon ALCO Holdings, LLC
540 Broadway
Albany, New York 12207

Prepared By:

Barton & Loguidice, P.C.
Engineers • Environmental Scientists • Planners • Landscape Architects
10 Airline Drive, Suite 200
Albany, New York 12205

Table of Contents

1.0 Introduction

Maxon ALCO Holdings, LLC (MAH) entered into Brownfield Cleanup Agreements (BCA) through the New York State Department of Environmental Conservation's (NYSDEC) Brownfield Cleanup Program (BCP) for the former industrial property located at 301 Nott Street in Schenectady, New York, identified as the ALCO Site (Property or Site) and historically known as the Nott Street Industrial Park (Park). In 2010, after purchasing the property, the Volunteer (Maxon-ALCO Holdings) divided the Property into three parcels: Parcel A, Parcel B and Parcel C (Site Nos. C447042, C447043, and C447044, see Figure 1) and each Parcel was deemed eligible for the BCP and subject to separate BCAs.

The purpose of the BCP is to encourage voluntary remediation of brownfield sites for reuse and development. This includes conducting a complete characterization of the Site by performing a Remedial Investigation (RI). The primary objective of the RI is to identify environmental concerns and to provide the basis for evaluating remedial alternatives, if necessary. The RI was completed in the first half of 2012, and the RI Report (prepared by CHA) was submitted to NYSDEC in August 2012. Though a separate Work Plan was prepared for each Parcel, the Remedial Investigation (RI) Report covered the entire Site since remedial decision making will include activities that involve multiple parcels on the ALCO Site.

Specifically, the objectives of the RI were to:

- Supplement the historic investigations that have been conducted on the Site,
- Further identify source(s) of contamination,
- Define the nature and extent of that contamination,
- Assess the impact of contamination on public health or the environment, and
- Provide information for the development and selection of a remedial work plan across all parcels (A, B, and C) that make up the Alco property.

The RI Report also provided a qualitative human health exposure assessment. An exposure pathway is complete when all five elements of an exposure pathway are documented; a potential exposure pathway exists when any one or more of the five elements comprising an exposure pathway is not documented.

The results of the exposure assessment indicated that there is currently one potential exposure pathway that requires additional vapor intrusion evaluation.

- Potential exposure of current tenants of Buildings 304, 306 and 330 to VOCs in indoor air through inhalation.

The following potential exposure pathways were identified with regard to future redevelopment of the parcels:

- Exposure of future on-Site workers to soil, groundwater, soil vapor or LNAPL that may be contaminated with VOCs, SVOCs, and/or metals during future intrusive activities at the Site. Routes of exposure to future on-Site workers could include inhalation, ingestion, dermal contact, eye contact, and puncture/injection.
- Exposure to groundwater that may be contaminated with VOCs, SVOCs, and/or metals if groundwater wells are installed and used for drinking water, etc.

Under contemplated future land use, the objective of the selected remedial alternative would be to prevent exposure to soil, groundwater, and/or soil vapor if these media are found to be impacted by historic industrial operations at the parcels.

The Alternatives Analysis Report (AAR) is the next step in the BCP process; the AAR was prepared by Barton & Loguidice, Inc., and attached to the Remedial Action Work Plan (RAWP) as an appendix. As part of the AAR, three areas of concern (AOCs) were identified based on the findings of the RI and the Exposure Assessment:

1. Historic aged Free-phase petroleum detected on the water table around monitoring well MW-36 and MW-45 (AOCs 1A and 1B);
2. The detection of chlorinated solvents in a narrow area of the eastern portion of the Site that extends from the vicinity of MW-19 toward the Mohawk River (AOC 2); and
3. Soil impacts from polynuclear aromatic hydrocarbons (PAHs) (AOC 3).

The AAR presents an evaluation of remedial alternatives to eliminate or mitigate potential threats to public health and the environment at the former ALCO site, to support the selection of the preferred remedy.

1.1 Purpose of Report

The RAWP was submitted to the NYSDEC in October 2012 and is currently under review; the RAWP presents the procedures for designing and implementing the remedy identified in the AAR. The alternatives are based upon the findings presented in the August 2012 RI Report. The RAWP has been prepared in accordance with DER-10, 6 NYCRR Part 375, and the Brownfield Cleanup Program Guidelines.

By letter dated December 14, 2012, NYSDEC provided comments on the RI Report; general comments were provided for site-wide issues, and comments specific to each parcel were also provided. The comment letter indicated that no further investigation was required for a majority of the areas/issues that were addressed by the RI. The comment letter also provided some preliminary concurrence on the nature and scope of the remedy (presented in the RAWP/AAR). Finally, the comment letter requested additional data collection activities to follow-up on and/or resolve some specified issues to finalize the RI.

The initial purpose of this Supplemental Remedial Investigation Work Plan (SRI-WP) is to provide the procedures for conducting the requested follow-up work. In follow-up discussions with NYSDEC, there was concurrence that the design investigation tasks proposed in the RAWP should be combined with the requested follow-up RI work, as the tasks are 1) similar in nature, and 2) need to be performed prior to the Remedial Design (RD). The tasks to be performed are summarized below:

Tasks Requested in NYSDEC 12/14/12 Letter and Follow-Up Discussion:

- Follow-up investigation on the geophysical investigation in identified areas
- Soil Vapor Intrusion investigation in the identified buildings
- Installation of three monitoring wells between Buildings 306-320
- Inspection of Building 308 Trench
- Borings in the MW-36 Area (AOC 1A)

Tasks Proposed in the Remedial Action Work Plan (RAWP):

- Chlorinated Solvent Plume Source Investigation (AOC 2)
- Chlorinated Solvent Plume Delineation (monitoring wells) (AOC 2)
- Monitoring wells in the MW-45 Area (AOC 1B)

1.1.1 Report Organization

This report is organized into two major sections (including this introduction section), with appropriate subsections within each division. Figure 1 is located following the text, prior to the appendices in the back of the document.

1.2 Site Background

1.2.1 Site Description

The Schenectady Locomotive Engine Manufactory initially developed a portion of the existing Park in 1849. In 1851, the company changed its name to Schenectady Locomotive Works (Works) and continued to develop the Site. In 1901, the Works merged with several other companies to form the American Locomotive Company (ALCO). ALCO operated the Site until 1969. Schenectady Industrial Corporation (SIC) purchased the Park in 1971, with General Electric Company (GE) occupying the Park as a tenant from 1971 to 1985. Small industrial, manufacturing and fabrication companies have occupied various buildings within the Park since 1985, when occupancy of buildings was returned to SIC.

During April 1992, Coyne Textile Services (CTS), with operations on Front Street, adjacent to the ALCO Site, had a fuel oil release that partially leaked into the municipal storm drain sewer system which flows under the Site, discharging to the Mohawk River at the College Creek Outfall. During inspection of this release, the NYSDEC reportedly observed petroleum seeping from riprap along the bank of the Mohawk River adjacent to Buildings 320 and 324. The

NYSDEC requested that a subsurface investigation be performed onshore adjacent to the petroleum seep areas. Following this release, Schenectady Industrial Corporation (SIC) entered into an Order on Consent (OC), (Index No. R4-1338-92-05), with the NYSDEC, requiring a subsurface investigation program at the Site.

Historically there have been many environmental investigations completed at the former ALCO Site since the initial investigation in 1992. These investigations, some of which were conducted in conjunction with NYSDEC oversight, have taken place across the ALCO-Maxon Site, which has been separated into Parcels A, B and C. In addition to the environmental investigations conducted throughout the former ALCO Industrial property, underground storage tank (UST) removals and remedial activities have been completed on the ALCO-Maxon Site parcels. Summaries of the investigations, UST removals and remedial activities are provided in Section 4.0.

Due to the historic industrial impacts identified on the ALCO Site and subsequent to the execution of a BCA, three Remedial Investigation Work Plans (one for each parcel) were prepared by Kleinfelder, Inc. (KLF) and submitted to NYSDEC on May 24, 2010. The Work Plan outlined the procedures and protocols that were to be utilized to conduct a full-scale remedial investigation that would provide the necessary field data to further delineate the nature and extent of contamination at the subject Site. The Work Plan was prepared to conform to the Draft DER-10 *Technical Guidance for Site Investigation and Remediation* issued by the Division of Environmental Remediation (December 2002). The RI Work Plans for Parcels B and C were subsequently approved by the NYSDEC on June 23, 2011. One of the comments received by the NYSDEC was a request for sampling of both the riverbank and Mohawk River sediments adjacent to the Site. Following the submission of a Work Plan Addendum on January 10, 2012, the RI Work Plan for Parcel A was approved by the NYSDEC on January 23, 2012.

1.2.2 Remedial Investigation Findings

1.2.2.1 Geology/Hydrogeology

The Site is underlain by a unit of fill that is present across much of the Site, varying from a minimum depth of 2 feet to a maximum depth observed during the RI of 12.4 feet. In general, the fill material consists of reworked soil (e.g., silt, sand, gravel, and clay) with lesser amounts of brick, concrete, ash/cinders, slag, metal, wood/organics, and glass. In locations where the fill unit is generally thinner, a fine to coarse grained sand unit of limited thickness is present beneath the fill. Based on the groundwater contours, as presented in Figure 6, it is apparent that groundwater flow across the majority of the subject Site is to the North towards the Mohawk River. The horizontal hydraulic gradient from south to north across the Site (i.e. from MW-19 to MW-25D) is approximately 0.006 ft/ft.

1.2.2.2 Surface Soil

The analytical results from this RI indicate that there are no VOC or PCB impacts to surface soil at the Site. These results are generally consistent with results from previous investigations. There are relatively widespread SVOC detections in surface soils at concentrations below Part 375 SCOs, and only limited areas that exceed Part 375 SCOs. The presence of certain VOC and SVOC Tentatively Identified Compounds (TICs) suggest that degradation/breakdown of historic aged petroleum has and/or is occurring across the Site. Lastly, there are limited, isolated areas of arsenic, lead, and/or mercury that slightly exceed Part 375 SCOs.

In their letter of 12/14/12, NYSDEC concurred with the findings of the RI Report on surface soils, and requested limited soil removal activities to address relatively small areas where Part 375 SCOs were exceeded for arsenic, lead, and/or mercury. The NYSDEC also indicated that use of a site-wide soil cover would be an acceptable remedial option to address residual impacts in surface soils.

1.2.2.3 Subsurface Soil

Analytical results for samples collected from the upper fill/sand unit suggest that there are no significant VOC impacts and only limited SVOC impacts to unsaturated soils. Within the unsaturated zone, the area of highest SVOC concentrations is present in the area just west of Building 308, the area located just south of Building 320, beneath the slab of Building 320, and the area between Buildings 316 and 332.

Based on the analytical results for soil samples that were collected from test pits as part of the current RI and from previous investigations, there is no evidence of any PCB or metal impacts to subsurface soils across the Site.

In their letter of 12/14/12, NYSDEC concurred with the findings of the RI Report on subsurface soils. The NYSDEC also indicated that use of a site-wide soil cover would be an acceptable remedial option to address residual impacts.

1.2.2.4 Groundwater

The results obtained during this RI confirm the detection of a historic chlorinated solvent plume, which appears to originate upgradient from or in the vicinity of MW-19 and extends over 1,200 feet in length towards the Mohawk River. The historic condition appears to be relatively narrow and is well-delineated to the east, south and west. The depth of the plume is relatively shallow (~20 feet bgs) in the vicinity of monitoring well MW-19 and temporary monitoring well TMW-19C and deepens to approximately 50 to 70 feet bgs along the length of the plume. The data confirms that natural degradation is occurring based on the presence of PCE and TCE breakdown products.

The only other areas with impacts to groundwater are those with relatively localized SVOC (PAH) detections that are generally associated with former UST areas or free product recovery

areas. However, a comparison of analytical results from this and from previous investigations suggests that contaminant concentrations have generally decreased, with few exceptions. The presence of TICs in most wells across the Site, consisting primarily of petroleum-related compounds, suggest that degradation/breakdown of historic, aged petroleum has occurred in groundwater across the Site.

In their letter of 12/14/12, NYSDEC concurred with the findings of the RI Report on groundwater, indicating that no further investigation was necessary. NYSDEC indicated that they would be providing comments on the delineation tasks that were proposed in the RAWP for the chlorinated solvent condition; those tasks are re-proposed in this work plan.

1.2.2.5 Soil Vapor Summary

The most apparent impacts to subsurface vapor are present at the southern edge of the Site located just north of Erie Boulevard. The subsurface in this area is primarily impacted by chlorinated VOCs related to the underlying chlorinated solvent groundwater condition. The detection of chlorinated VOCs extends to the north/northeast and generally follows the direction of the groundwater. There are also chlorinated VOC impacts to subsurface soil vapor in a limited area between Buildings 346 and 324 and in the southwestern-most portion of the Site between Buildings 306 and 308. There are various but minor impacts to subsurface soil vapor from petroleum-related compounds; however, the detections do not indicate the presence of any significant petroleum source for soil vapor contamination.

In their letter of 12/14/12, NYSDEC concurred with the findings of the RI Report on soil vapor, and requested soil vapor intrusion (SVI) evaluation in three on-site buildings. The proposed SVI work is presented in this work plan.

1.2.2.6 Riverbank Soil Summary

The analytical results from this RI indicate that there are no VOC or PCB impacts to soils on the bank of the Mohawk River that runs parallel to the Site, generally consistent with results from previous investigations. Impacts from SVOCs to the riverbank of the Mohawk River associated with the Site are generally limited to areas where historic operations took place, in the immediate vicinity of Buildings 326, 324 and 322.

Based on the results obtained during this RI and the previous remedial measures undertaken, minor detections of inorganics (mainly iron, arsenic, mercury and lead) in riverbank soils appear to also be limited to the western portion of the riverbank that runs parallel to the Site (west of College Creek Outfall). The eastern portion of the riverbank has only limited detections of metals (arsenic and lead) slightly above Part 375 SCOs in the area north of Building 346.

In their letter of 12/14/12, NYSDEC concurred with the findings of the RI Report on riverbank soils, and requested limited soil removal activities to address relatively a small area where Part 375 SCOs were exceeded for arsenic and lead. The NYSDEC also indicated that use of a site-

wide soil cover would be an acceptable remedial option to address residual impacts in riverbank soils.

1.2.2.7 River Sediment Summary

Collectively, the RI noted detectable concentrations of historic industrial related compounds present in Mohawk River sediments both adjacent to the Site and upstream from the Site. The data indicate that an up-gradient source of chlorinated VOCs impacted up-gradient river sediments, but the impacts are relatively localized. There do not appear to be any VOC impacts to sediment immediately adjacent to the site. SVOC impacts are evident upstream and adjacent to the western-most portion of the site (i.e. in the Building 320 area to the east) and suggest that an up-gradient SVOC source is, or was, also present. There are no PCB impacts to the river sediments. The results also indicate that sediments both adjacent to the Site and upstream from the Site have detectable concentrations of metals. The Site is not causing significant adverse inorganic impacts to river sediments.

In their letter of 12/14/12, NYSDEC concurred with the findings of the RI Report on river sediments samples, and determined that the Fish and Wildlife Resources Impact Analysis (FWRIA) has been satisfied and no further investigation or information is needed.

1.2.3 Current and Intended Use

The City of Schenectady adopted its new Zoning Ordinance (Chapter 264) on March 24, 2008. The ALCO Site is zoned C-3 Waterfront Development District. The purpose of the C-3 district is to provide unique opportunities for the development and maintenance of water-oriented uses within certain areas of the City adjacent to the Mohawk River. The C-3 District permits certain recreational, open space, business, and residential uses which will generally benefit from and enhance the unique aesthetic, recreational, and environmental qualities of the waterfront areas.

The former industrial site is serviced by municipal water and sewer and currently has commercial tenants on a limited portion of the property along Front Street and is otherwise unoccupied with the vacant structures being demolished in 2011. The intended future use of the site is to contain a mixture of restricted - residential and commercial uses.

2.0 Scope of Work

To preserve consistency, investigation work described in this work plan will be performed using the procedures/methods provided in the approved RI work plans (Kleinfelder, 2010), which are incorporated by reference. Minor variations from these procedures /methods may be made, as specifically discussed in this work plan.

2.1 Chlorinated Solvent Plume Source Investigation (AOC 2)

In the approved Remedial Investigation Work Plan for Parcel C prepared by Kleinfelder, a summary of previous investigations for the chlorinated solvent plume was provided which indicated that the plume appeared to have an origin near monitoring well MW-19 and extended from MW-19 to at least MW-51 (roughly 900 feet). The plume is narrow and appeared to be moving along the established hydraulic gradient, moving deeper with distance from the source.

The RI report prepared by CHA (August 2012) provided further characterization of the groundwater condition, specifically with the addition of wells MW-52 and MW-25D, which were located further downgradient than previous monitoring wells. Data from the RI from wells within the plume area was presented on Figure 7A in the RI Report (provided in Appendix A of this work plan). As shown on RI Figure 7A, the ground water condition can be detected across a narrow portion of the 3 parcels in the direction of the Mohawk River. The RI data also supports the conclusion that the condition originates near MW-19, and soil vapor data from point SV-C9 indicates that a source area may still exist in that vicinity.

Investigation is needed to determine whether a source area still exists in the vicinity of MW-19; if a contaminant source area is still extant, a remedial program for addressing the source area will be developed during the Remedial Design (RD) phase and will be implemented following NYSDEC approval. Investigation is also needed to refine the dimensions of the plume and to determine the best means of mitigating the historic condition.

To determine whether an area of heavily impacted soils exists that would account for the existing chlorinated solventcondition, and if it exists to characterize the lateral extent and depth of the area, a series of borings will be advanced in the area shown on Figure 1, using a Geoprobe equipped with a Membrane Interface Probe (MIP), which is a real-time sensor for detecting volatile organic compounds (VOCs); the output from the MIP is a real-time vertical log of VOC concentrations. The MIP detects the total concentration of VOCs, regardless of the matrix (present as a vapor in the soil vapor, dissolved in groundwater or adsorbed to soil/geologic materials)

The first boring will be advanced proximate to SV-C9 and subsequent borings will be advanced in a roughly radial pattern extending outwards from SV-C9. The locations and spacing of the borings will be dependent upon the findings in the field; NYSDEC will be consulted on the selection of boring locations. Borings will be initially advanced to a depth of roughly fifteen (15)

feet below grade; boring depths will be adjusted dependent upon the findings in the field, in consultation with NYSDEC.

The field work should allow for roughly 30 borings. The total number of borings will be determined by the findings in the field, in consultation with NYSDEC. Soil samples will be collected at approximately half of the boring locations using a MacroCore sampler; soil samples will be submitted to a laboratory for analysis for VOCs by USEPA Method 8260B. The selection of the boring location and sample depth will be made following completion of the MIP borings, in consultation with NYSDEC. In general, the sample locations and depths will be selected to provide representative correlation of VOC concentrations with the MIP data, and allow for comparison to DER-10 cleanup guidance criteria.

2.2 Chlorinated Solvent Delineation (AOC 2)

To further delineate the chlorinated solvent plume and determine an effective means for mitigation, four new monitoring wells will be installed at the locations shown on Figure 1. The wells will be installed and developed using the same techniques as used in the RI, with the exception of using a pressure washer in place of a steam cleaner to decontaminate drilling equipment and using a layer of bentonite pellets on top of the filter pack to within two feet of the water table (in place of the minimum 3 foot layer of bentonite pellets). Roughly two weeks following the completion of well development, samples will be collected from the newly-installed monitoring wells as wells as eight existing monitoring wells that currently define the plume. Samples will be collected by pumping or bailing, and samples will be submitted to a laboratory for analysis for VOCs by USEPA Method 8260B. The elevations of the new monitoring wells will be surveyed to the nearest hundredth of an inch and water-level elevations will be measured in new and existing monitoring wells during the sampling event.

A report will be prepared and submitted to NYSDEC to summarize the findings of the investigation work. The report will contain appropriate supporting figures and tables. The report will discuss whether a contaminant source is still present in the vicinity of well MW-19, and if so, will provide its approximate dimensions and recommendations for remediation (which will be followed up in the RD). The report will also discuss the dimensions of the chlorinated solvent plume and whether active remedial measures are likely to materially shorten the lifespan of the plume once the source area, if identified, is remediated.

2.3 MW-45 Area LNAPL Investigation (AOC 1B)

Well MW-45 was covered over during the demolition phase, but was located by CHA during the RI. LNAPL was detected in MW-45 and manual recovery of LNAPL was commenced in mid-2012. The extent of LNAPL in the area of MW-45 is unclear as there are no nearby wells. To determine the extent of LNAPL, three monitoring wells will be installed at the approximate locations shown on Figure 1. The wells will be installed and developed using the same techniques as used in the RI, with the exception of using a pressure washer in place of a steam cleaner to decontaminate drilling equipment and using a layer of bentonite pellets on top of the

filter pack to within two feet of the water table (in place of the minimum 3 foot layer of bentonite pellets). The wells screens will be positioned vertically to bridge the apparent water table, to allow for the detection of free-phase LNAPL.

The newly-installed wells will be monitored for a period of roughly 3 months to determine whether LNAPL accumulates in the wells. During this time period, manual removal of LNAPL will continue in well MW-45. Following the 3-month monitoring period, a determination will be made as to whether installation of additional belt skimmers in MW-45 and/or the newly-installed wells is warranted.

2.4 Follow-up Investigation on Geophysical Survey Results

The NYSDEC letter of 12/14/12 requested additional investigation in the following areas that were part of the Geophysical Survey work performed during the RI.

GPR Area 2 (Parcel B) – possible buried structure

GPR Area 6 (Parcel B) – possible underground storage tank

GPR Area 8 (Parcel C) – underground storage tank, unknown closure status (i.e. – whether tanks have been filled with inert material)

A small backhoe will be mobilized to investigate each of the identified areas. For Areas 2 and 6, each area will be excavated to the general depth indicated by the geophysical survey; if an object is encountered, the excavation will be widened sufficiently to identify the object and locate access points (e.g. – fill ports, piping, etc.). If warranted by conditions, one or more access points will be opened to determine if residual contents (e.g. – petroleum) are present. Depending upon the results of the investigation, follow-up sampling and/or removal of the object will be conducted, in concurrence with NYSDEC.

For Area 8, the backhoe will be used to expose the tank(s). The tank(s) will be physically inspected to determine, to the extent possible, whether they were closed by being filled with inert material (sand or concrete). If the tanks are filled with inert material, they will be re-covered and no further work will be conducted. If the tanks were not filled with inert material when they were closed, a plan will be developed and submitted to NYSDEC for removal of the tank(s).

2.5 Soil Vapor Intrusion Sampling

The NYSDEC letter of 12/14/12 requested soil vapor intrusion (SVI) additional investigation in Buildings 300, 306 and 330, which are located in Parcel C. (Note: Building 330 is not under the control of the Respondent, Alco Maxon Holdings, LLC; reasonable attempts will be made to secure permission to conduct the sampling from the building owner).

In each of the buildings, two sub-slab samples will be collected along with one ambient air sample. Locations for sample collection will be made in the field in consultation with NYSDEC.

Sub-slab soil vapor sampling installations will consist of temporary probes constructed of polyethylene tubing installed in holes drilled through the building floor. A surface seal will be installed to prevent the infiltration of ambient air into the sampling probe. If the sampling is completed during colder months, if practicable, indoor heating systems should be in operation for at least 24 hours prior to, and during sampling, in order to maintain indoor air temperatures of 65 to 75 degrees Fahrenheit. Soil vapor samples will be collected in the following manner:

1. One to three implant volumes (i.e., the combined volume of the sample probe and tube) must be purged prior to collection of the sample;
2. Flow rates for purging and collection shall not exceed 0.2 liters per minute to minimize outdoor air infiltration during sampling;
3. Summa® sampling canisters will be used and must be certified clean by the laboratory;
4. The size of the sampling container must be sufficient to achieve the minimum reporting limits;
5. Samples will be analyzed for VOCs by USEPA Method TO-15.

Ambient air samples will be collected in the same manner, without the purging step.

The following conditions, if any, will be documented during sampling to aid in the interpretation of the results:

1. Historic and current storage and use of volatile chemicals within the building, both in industrial processes and in building maintenance;
2. Use of heating or air conditioning systems during sampling;
3. Floor plan sketch of building, showing the floor layout with sampling locations, chemical storage areas, garages, doorways, stairways, locations of basement sumps or subsurface drains, and utility perforations through the building foundations, HVAC system air supply and return registers, compass orientation, footings, and other pertinent information;
4. Weather conditions (precipitation, indoor temperature, outdoor temperature) and ventilation conditions (e.g., heating system active, windows closed);
5. Pertinent observations such as spills, floor stains, odors, readings from field instruments.

2.6 Installation of Three Monitoring Wells Between Buildings 306-320

The 12/14/12 NYSDEC letter referenced the December 1998 Building 306 Investigation which recommended additional subsurface investigation in the large paved area between Buildings 306 and 320. To provide this assessment, three new monitoring wells will be installed at the locations shown on Figure 1. The wells will be installed and developed using the same techniques as used in the RI, with the exception of using a pressure washer in place of a steam cleaner to decontaminate drilling equipment and using a layer of bentonite pellets on top of the

filter pack to within two feet of the water table (in place of the minimum 3 foot layer of bentonite pellets). Roughly two weeks following the completion of well development, samples will be collected from the newly-installed monitoring wells as wells as eight existing monitoring wells that currently define the plume. Samples will be collected by pumping or bailing, and samples will be submitted to a laboratory for analysis for VOCs by USEPA Method 8260B. The elevations of the new monitoring wells will be surveyed to the nearest hundredth of an inch and water-level elevations will be measured in new and existing monitoring wells during the sampling event.

2.7 Inspection of Building 308 Trench

The RI Report summarized the findings of the Building 308 Geoprobe Investigation (dated April, 1999), and indicated that the trench system in the building had been filled in to eliminate a potential vapor intrusion pathway. The NYSDEC letter of 12/14/12 requested confirmation of the filling of this trench system.

The area of the trench system in Building 308 will be physically inspected; NYSDEC will be supplied with a letter report and photographs documenting the filling of the trench system.

2.8 Borings in the MW-36 Area (AOC 1A)

In follow-up discussions with NYSDEC on the 12/14/12 letter, additional subsurface work was requested for the MW-36 area to help determine the extent of Light Non-Aqueous Phase Liquid (LNAPL) on the water table in that area. Recovery of LNAPL in the MW-36 series wells was begun by Kleinfelder in 2008, and efforts have been on-going during the site demolition phase when electrical power was unavailable. A battery-operated belt skimmer was installed in mid-2012 to address the only well with remaining LNAPL, MW-36C, which is effectively surrounded by monitoring wells that do not contain LNAPL. The operation of the LNAPL skimming operation will be continued as requested by NYSDEC.

To assess the extent of LNAPL, a series of Geoprobe borings will be advanced around MW-36C, inside the surrounding ring of monitoring wells. The borings will be advanced to the apparent water table depth using a MacroCore sampler, which provides soil samples in four-foot intervals. The soil samples will be physically examined for the thickness of saturation by petroleum product. The first boring will be placed as close to MW-36C as feasible, with subsequent borings performed radially outward from MW-36C. Boring locations will depend in part on field observation and will be made in consultation with NYSDEC; it is anticipated that 12-15 borings will be advanced as part of this investigation.

2.9 Reporting

A Supplemental Remedial Investigation (SRI) Report will be prepared to provide the findings of the work described in this work plan. The SRI Report will contain supporting figures and tables, with laboratory data reports and boring logs provided in appendices.

3.0 References

CHA, August 2012. Remedial Investigation Report, ALCO-Maxon Sites, Parcels A,B&C.

Kleinfelder, Inc., September 2010. Remedial Investigation Work Plan, Parcel A of the ALCO-Maxon Site.

Kleinfelder, Inc., September 2010. Remedial Investigation Work Plan, Parcel B of the ALCO-Maxon Site.

Kleinfelder, Inc., September 2010. Remedial Investigation Work Plan, Parcel C of the ALCO-Maxon Site.

New York State Department of Environmental Conservation, May 2010. DER-10 / Technical Guidance for Site Investigation and Remediation. DEC Program Policy, Office of Remediation and Materials Management.

New York State Department of Environmental Conservation, December 2006. 6 NYCRR PART 375, Environmental Remediation Programs, Subparts 375-1 to 375- 4 & 375-6. Division of Environmental Remediation.

New York State Department of Environmental Conservation, May 2004. Draft Brownfield Cleanup Program Guide. Division of Environmental Remediation.

New York State Department of Environmental Conservation, 1997. Environmental Restoration Projects, Program ID No. DER-97-4058. Division of Environmental Remediation, Bureau of Program Management.

New York State Department of Environmental Conservation, 1998. "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations', Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1. Reissued June 1998.

New York State Department of Health, 2006. "Guidance for Evaluating Soil Vapor Intrusion in the State of New York."

United States Environmental Protection Agency, 1994. "Radon Prevention in the Design and Construction of Schools and Other Large Buildings."

Figure 1

Site Location Map Showing Location for Investigation Activities

Appendix A

RI Figure 7A

N

AOC 2

AOC 1B

GPR AREA 6

GPR AREA 2

AOC 1A

GPR AREA 8

CHLORINATED SOLVENT
DELINEATION AREA

LEGEND:

– – – – APPROXIMATE EXTENT OF CHLORINATED SOLVENT IMPACT PROJECTED BY KLEINFELDER (2007)

⊙ – APPROXIMATE LOCATIONS FOR PROPOSED MONITORING WELLS

Barton & Loguidice, P.C.

Engineers · Environmental Scientists · Planners · Landscape Designers

MAXON ALCO HOLDINGS, LLC

SUPPLEMENTAL REMEDIAL INVESTIGATION WORK PLAN LOCATIONS FOR INVESTIGATION ACTIVITIES

CITY OF SCHENECTADY, NEW YORK

Figure

1

Project No.

1368.001

Z:\BL-Vault\DV\279000-279999\279817\LU\13680001Approximate location of monitoring wells (ID 279817).dwg, 1/16/2013 6:21:27 AM

	MW-45
Benzene	5.2
Benzene, (1-methylethyl)-	19
Chloroethane	29

	MW-48
Cis-1,2-Dichloroethene	2,300
Trichloroethylene	230
Trans-1,2-Dichloroethene	12
Trichloroethylene	400
Vinyl Chloride	230

	MW-52
Cis-1,2-Dichloroethene	970
Trichloroethylene	43
Trans-1,2-Dichloroethene	30
Trichloroethylene	760
Vinyl Chloride	47 J

	MW-25D
Cis-1,2-Dichloroethene	280
Tetrachloroethene	34
Trichloroethylene	42
Vinyl Chloride	7.8

	MW-50
Benzene, (1-methylethyl)-	9

	MW-36E
Benzene, (1-methylethyl)-	5.5

	MW-36F
Benzene, (1-methylethyl)-	5.3

	MW-47
Cis-1,2-Dichloroethene	62
Trichloroethylene	12

	MW-46
Cis-1,2-Dichloroethene	1,700
Tetrachloroethene	220
Trichloroethylene	94

	OSMW-3
Tetrachloroethene	10
Trichloroethylene	23

	MW-19
Cis-1,2-Dichloroethene	120
Tetrachloroethene	660
Trichloroethylene	86

	OSMW-1
Trichloroethylene	9.9

PARCEL A

PARCEL B

PARCEL C

BUILDING 323
BUILDING 326
BUILDING 346
BUILDING MW-04 0.72
BUILDING 324
BUILDING 320
BUILDING 342
BUILDING 340
BUILDING 332
BUILDING 316
BUILDING 318
BUILDING 308
BUILDING 306
BUILDING 304
BUILDING 300
BUILDING 338
BUILDING 336
BLDG. 330 ADDITION
BLDG 330
OFFICE TRAILER
FORMER BUILDING LOCATIONS 312 & 314
FORMER ERIE BOULEVARD SUBSTATION
REPUTED LANDFILL N/F OF RENSSELAER POLYTECHNIC INSTITUTE

MW-01 93.71
MW-06 66.7
MW-07 62.1
MW-43 NS
MW-45 1,013.8
MW-39 0
MW-38 15
MW-40 0.57
MW-32 0
MW-53 389.55
MW-31 0
MW-41 1.5
OW-2 NS
MW-33 2.9
MW-16 12.81
MW-12D 0
MW-48 3,160
MW-50 246.31
MW-52 2,653
MW-25D 363.8
MW-12 13.5
MW-36D 280.34
MW-36E 307.68
MW-36F 379.96
MW-36C NS
MW-36 42.77
MW-36B 63.08
MW-36A 8.53
MW-47 74
MW-44 75.3
MW-46 2,014
MW-21 21.1
OW-3 0
MW-18 1.82
MW-17 238
MW-19 866
OSMW-3 34.5
OSMW-1 16.6

500 1000 2000 1000 500 250 2000

120 60 0 120
SCALE (feet)

LEGEND

- PROPERTY BOUNDARY
- BCP SITE BOUNDARY
- GRID FOR SOIL VAPOR SAMPLING
- LIFT STATION WITH DRAINAGE STRUCTURE NUMBER
- MANHOLE (M.H.)
- CATCH BASIN (C.B.)
- MANHOLE WITH DRAINAGE STUCTURE NUMBER
- CATCH BASIN WITH DRAINAGE STRUCTURE NUMBER
- 2000 — Total VOCs Isoconcentration Contours (PPB)*

*Total VOCs results from deep wells and MW-19 only were used to generate the isoconcentration contours. Dashed where inferred.

MW-19 866 — GROUNDWATER MONITORING WELL

Total VOCs, including TICs*, NS = NOT SAMPLED

*Values are RED where one or more parameters were detected above TOGS 1.1.1 Groundwater Standards/Guidance Values

VOCs detected above TOGS 1.1.1 Groundwater Standards/Guidance Values

	MW-19 ← SAMPLE ID
Cis-1,2-Dichloroethene	120
Tetrachloroethene	660
Trichloroethylene	86

All units are in µg/L (PPB)
NS = NOT SAMPLED

AREA DEFINITIONS

- BUILDINGS/STRUCTURES
- HB — FORMER BUILDINGS (PREVIOUSLY DEMOLISHED)

NOTES:

1) BASE MAPPING PREPARED BY ABD ENGINEERS & SURVEYORS FROM A FEBRUARY 1988 FIELD SURVEY, UPDATED TO NOVEMBER 1999.
2) SURVEY SHOWN IS SUBJECT TO ANY SUBSURFACE EASEMENTS, RESTRICTIONS OR CONDITIONS THAT EXIST, IF ANY.
3) UNDERGROUND UTILITIES ARE SHOWN FROM FIELD LOCATION IF POSSIBLE. OTHERS ARE SHOWN FROM RECORD DATA. THEIR EXACT LOCATION MAY BE DIFFERENT FROM THAT AS SHOWN AND OTHERS MAY EXIST.
4) THIS SURVEY HAS BEEN PREPARED IN ACCORDANCE WITH THE CODE OF PRACTICE FOR LAND SURVEYS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS AS LAST REVISED JANUARY 1993.
5) BEARINGS BASED UPON MAP REFERENCE NO. 1.
6) THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF AN UP TO DATE ABSTRACT OF TITLE OR TITLE REPORT AND IS SUBJECT TO ANY STATEMENT OF FACT THAT SUCH ABSTRACT OF TITLE OR TITLE REPORT MAY REVEAL.

MAP REFERENCE:

1) "SURVEY OF LANDS, ALCO LOCOMOTIVE, INC., CITY OF SCHENECTADY, COUNTY OF SCHENECTADY", DATED MARCH 1970, AS PREPARED BY C.T. MALE ASSOCIATES.
2) "A SUBDIVISION OF A PORTION OF LANDS OF SCHENECTADY INDUSTRIAL CORPORATION", DATED JUNE 30, 1988, AS PREPARED BY THE ENVIRONMENTAL DESIGN PARTNERSHIP.
3) "SITE PLAN, PROPOSED C & D RECYCLING FACILITY, NOTT STREET INDUSTRIAL PARK", DATED FEBRUARY 1995, AS PREPARED BY INGALLS SMART ASSOCIATES.

SOURCE:

1) ABD ENGINEERS AND SURVEYORS FEBRUARY 1988, REVISED NOVEMBER 1999.
2) HISTORIC BUILDING (HB) LOCATIONS BASED ON A "FUEL OIL PIPING" PLAN, PREPARED FOR AMERICAN LOCOMOTIVE CO., REVISED AUGUST 22,195.
3) MAPPING AND ALL LOCATION INFORMATION PROVIDED BY KLEINFELDER.

No.	Submittal / Revision	Appvd	By	Date

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Designed: | Drawn: | Checked:

REMEDIAL INVESTIGATION REPORT

Groundwater - VOCs

Scale: AS NOTED | Project No.: 23816 | Issue Date: 07/2012

FIG 7A

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