



March 30, 2016

Mr. William Wu
Environmental Engineer 1
NYSDEC, Division of Environmental Remediation
625 Broadway, 11th floor
Albany, NY 12233-7014

**Re: Remedial Investigation Work Plan to Fulfill Consent Order
11 Evan Street, Batavia, NY – Site No. 819019**

Dear Mr. Wu,

As requested, TurnKey Environmental Restoration, LLC (TurnKey) has prepared this Remedial Investigation Work Plan (RIWP) on behalf of R&J Enterprises of Batavia, LLC (R&J) to outline the scope of work required to fulfill the existing Consent Order for the Site.

As previously discussed with the Department, R&J would like to apply for entry of the Site in the New York Brownfield Cleanup Program (BCP). However, because the Site is currently listed in the Inactive Hazardous Waste Program with an existing Consent Order, the Consent Order must be fulfilled prior to the Department being able to make a Site eligibility determination for the BCP. R&J, TurnKey and the New York State Department of Environmental Conservation (NYSDEC) met on January 19th via conference call to discuss the necessary requirements to meet the Consent Order and become eligible for the BCP. Based on that call and follow up discussions, the Department determined that the following work must be completed to fulfill the Consent Order:

- A ground penetrating radar (GPR) survey, as outlined in the approved Interim Remedial Measures Work Plan (IRMWP)¹;
- Five (5) monitoring wells, as outlined in the IRMW, must be installed, developed, and sampled;
- Five (5) soil samples, one (1) from each of the five (5) monitoring wells to be installed, will be submitted for laboratory analysis; and,
- A Remedial Investigation/Focused Feasibility Study (RI/FFS) Report will be prepared based on the previously collected data and work outlined in this RIWP.

NYSDEC will issue a Record of Decision (ROD) for the Site upon the approval of the RI/FFS. Upon issuance of the ROD, the Consent Order requirements will be considered fulfilled.

¹ "Interim Remedial Measure Work Plan, Batavia Former MGP Site, NYSDEC Site No. 819019". Prepared for R&J Enterprises of Batavia, LLC by Conestoga-Rovers & Associates. December 2014.

Remedial Investigation Scope of Work

This document presents the proposed scope of work and implementation procedures for completion of a Remedial Investigation (RI) and preparation of a Focused Feasibility Study (FFS) at the 11 Evans Street Site, located in Batavia, New York (see Figures 1 and 2).

The Remedial Investigation scope of work is focused on further defining the nature and extent of contamination at on and off-site locations, identifying the location(s) of subsurface structures and piping, defining chemical constituent migration pathways, qualitatively assessing human health and ecological risks (if necessary), and obtaining data of sufficient quantity and quality to complete the FFS report.

Field team personnel will collect environmental samples in accordance with the rationale and protocols described in the previously approved Quality Assurance Project Plan² (QAPP) which was included as Appendix B of the IRMWP. USEPA and NYSDEC-approved sample collection and handling techniques will be used. Samples for chemical analysis will be analyzed in accordance with USEPA SW-846 methodology with an equivalent Category B deliverable package to meet the definitive-level data requirements. Analytical results will be evaluated by a third-party data validation expert in accordance with provisions described in the QAPP. Data submittals will be provided to the NYSDEC in accordance with the most current electronic data deliverables (EDD) protocols.

During intrusive outdoor RI activities, a Community Air Monitoring Plan (CAMP) will be followed. The CAMP is consistent with the requirements for community air monitoring at remediation sites as established by the New York State Department of Health (NYSDOH) and NYSDEC. Accordingly, it follows procedures and practices outlined under NYSDEC's DER-10 (May 2010) Appendix 1A (NYSDOH's Generic Community Air Monitoring Plan) and Appendix 1B (Fugitive Dust and Particulate Monitoring). These documents have been included as an attachment to this RIWP.

The RI tasks are described below. The proposed RI sample locations are presented on Figure 2 and the planned sampling and analytical program is identified on Table 1. The work performed as part of this RIWP will be done in general accordance with the previously approved Health and Safety Plan³ (HASP) which was included as Appendix A of the IRMWP.

Ground Penetrating Radar Survey

Ground penetrating radar (GPR) will be used to locate and identify any underground utilities and/or underground structures that are present at the Site. The GPR survey will be

² "Remedial Investigation/Feasibility Study Work Plan, Quality Assurance Project Plan, Batavia Former MGP Site, Batavia, New York, NYSDEC Site No. 819019". Prepared by Conestoga-Rovers & Associates. April 2014.

³ "Site-Specific Health and Safety Plan, Batavia Former MGP Site, Batavia, New York, NYSDEC Site No. 819019". Prepared by Conestoga-Rovers & Associates. April 2014.

completed throughout the entire accessible portions of the Site with a focus on the following areas:

- subsurface structures that may be related to the product observed in MW-1;
- the extent of the void space identified at former TP-3;
- a historic oil underground storage tank (UST) in the southeast portion of the Site in an effort to locate the extent of the tank grave or associated features; and,
- to identify whether historic underground piping associated with the former MGP is present.

The findings from the GPR will be identified on a figure and discussed in the RI/FFS report.

Monitoring Well Installation & Soil Sampling

Five (5) monitoring wells will be installed at the Site at the location shown on Figure 2. Prior to completing the well installation, direct push soil borings will be completed at each location to for geologic description, to assess the subsurface conditions by making visual and olfactory observations, field screening retrieved soil using a photoionization detector (PID), and to collect samples for laboratory analysis.

TurnKey will submit one (1) sample from each soil boring for laboratory analysis. The sample selection will be based on the area of the soil boring exhibiting the highest PID measurements. The sample will be submitted for Target Compound List (TCL) VOCs, TCL SVOCs, Target analyte List (TAL) metals, and total cyanide. Samples will be submitted to TestAmerica laboratory under chain-of-custody procedures for analysis. In addition to the five (5) soil samples, one (1) matrix spike, one (1) matrix spike duplicate and one (1) duplicate sample will be submitted for similar analysis.

After the soil borings are complete the monitoring wells will be installed using 4 1/4-inch approximately hollow stem augers (HSA) from ground surface to the desired depth of installation (estimated to be approximately 15 feet below ground surface) based on the soil boring. Monitoring wells will be constructed with 2-inch inside diameter flush-threaded PVC pipe. The well screens will be a maximum of 10 feet and will be installed to straddle the water table (i.e., approximately 3 feet above and 7 feet below the water table elevation). The annulus space between the borehole and well will be backfilled with sand to approximately 1 foot over the top of the well screen and capped with an approximate 3 foot bentonite chip seal.

The monitoring wells will be developed no sooner than 48 hours following installation. Well development will be accomplished by either pumping or bailing accompanied by surging. Well development will continue until the purged water exhibits a turbidity of 50

nephelometric turbidity units (NTUs) or lower or for a maximum of 1 hour. Groundwater removed from the wells will be collected for waste characterization and disposal.

The soil boring/monitoring well logs will be prepared and included in the RI/FFS report along with the well development forms. The results of the soil samples will be validated, tabularized, and discussed in the RI/FFS report.

Groundwater Sampling

Groundwater monitoring wells will be purged and sampled using low flow techniques. During low flow purging (LFP), the pumping rate should be between 100 and 500 milliliters per minute (mL/min). During LFP, stabilization of the purged groundwater is required to ensure the collection of representative groundwater samples from the formation and not from the stagnant water in the well casing. Field parameters including pH, temperature, specific conductance, oxidation-reduction potential (ORP), dissolved oxygen (DO), and turbidity will be monitored during LFP. The measurement of these field parameters is used to evaluate if stabilization of the purged groundwater has occurred prior to the collection of groundwater samples. The field measurements will be measured and recorded at approximate 5-minute intervals. Groundwater stabilization is considered achieved when three consecutive readings for each of the field parameters, taken at 5-minute intervals, are within the following limits:

- pH ± 0.1 pH units of the average value of the three readings
- temperature ± 3 percent of the average value of the three readings
- conductivity ± 0.005 milliSiemen per centimeter (mS/cm) of the average value of the three readings for conductivity < 1 mS/cm and ± 0.01 mS/cm of the average value of the three (3) readings for conductivity > 1 mS/cm
- ORP ± 10 millivolts (mV) of the average value of the three readings
- DO ± 10 percent of the average value of the three readings
- turbidity ± 10 percent of the average value of the three readings, or a final value of less than 5 nephelometric turbidity units (NTU)

Wells will be sampled as soon after purging as possible. In the case of slow recovery, sampling will be conducted as soon as the recovered volume of water is adequate to provide the full sample volume. Groundwater samples will be analyzed for TCL VOCs, TCL SVOCs, TAL total metals, and total cyanide. In addition to the five (5) groundwater samples, one (1) matrix spike, one (1) matrix spike duplicate, one (1) duplicate sample, and one (1) equipment blank will be submitted for similar analysis.

The results of the groundwater samples will be validated, tabularized, and discussed in the RI/FFS report.

Remedial Investigation/Focused Feasibility Study Report

A RI/FFS Report will be prepared after the completion of the RI activities. The RI/FFS will include analytical data collected to date from the Site.

The RI portion of the report will include the following information and documentation, consistent with the NYSDEC's DER-10 Technical Guidance for Site Investigation and Remediation:

- Introduction and background;
- A description of the site and the investigation areas;
- A description of the field procedures and methods used during the RI;
- A discussion of the nature and rationale for any significant variances from the scope of work described in this RI Work Plan;
- The data obtained during the RI and historical data considered by TurnKey to be of useable quality. This will include geochemical data, field measurements, etc.;
- Comparative criteria that may be used to calculate cleanup levels during the feasibility study, such as NYSDEC Soil Cleanup Objectives and other pertinent regulatory standards or criteria;
- A discussion of contaminant fate and transport;
- Conclusions regarding the extent and character of environmental impact in the media being investigated;
- The conclusions of the qualitative human health and environmental risk assessments, including any recommendations for more detailed assessments, if applicable; and,
- Supporting materials for RI data. These will include boring logs, monitoring well construction diagrams, laboratory analytical reports, etc.

The FFS will be developed to provide a forum for evaluating and selecting a recommended remedial approach. Soil/fill, groundwater and soil vapor intrusion data collected during the RI will require evaluation to determine if remedial work is required.

A list of remedial action objectives (RAOs) will be developed based on findings of the RI and the requirement for the selected remedial measures to be protective of human health and the environment under the proposed future (commercial) use scenario. Proposed soil cleanup objectives (SCOs) for the property will also be presented based on the planned future commercial use of the Site. SCOs will be based on published standards, criteria, and guidance (SCGs) (i.e., 6NYCRR Part 375 SCOs) and other NYSDEC and NYSDOH-accepted values.

Based on the RAOs and SCOs, volumes and areas of environmental media potentially requiring additional remediation (if any) will be calculated. General response actions will then

be delineated to address each of the site problem areas. These response actions will form the foundation for the development and screening of applicable remedial alternatives against the following criteria as described in 6NYCRR 375-1.10:

- Overall Protection of Human Health and the Environment
- Compliance with Standards, Criteria, & Guidance (SCGs)
- Long-term Effectiveness & Permanence
- Reduction of Toxicity, Mobility, or Volume
- Short-term Effectiveness
- Implementability
- Cost
- Community Acceptance
- Future Land Use

Three (3) remediation alternatives will be developed and require comparative analysis against the criteria listed above and may include: 1) No further action; 2) a preferred alternative; and, 3) unrestricted use cleanup. The comparative analysis will allow for better understanding of the relative advantages and disadvantages of each of the alternatives, and will facilitate identification of a recommended remedial approach.

Upon completion of the RI/FFS report, it will be submitted to the NYSDEC for review. Once the RI/FFS Report has been approved by NYSDEC, a ROD will be issued. It is R&J's intent after the ROD is issued to request that the Order on Consent be terminated and apply to the NYSDEC BCP program to complete the remainder of the project.

Please do not hesitate to contact us if you have any questions or concerns.

Sincerely,
TurnKey Environmental Restoration, LLC



Christopher Boron
Senior Project Manager



Michael A. Lesakowski
Principal

Attachments: Table 1 – Sampling and Analysis Plan
 Figure 1 – Site Location & Vicinity Map
 Figure 2 – Site Boundary and Proposed Investigation Locations Plan
 Attachment 1 - DER-10 Appendix 1A & Appendix 1B

TABLE



**TABLE 1
SAMPLING AND ANALYSIS PLAN**

**Remedial Investigation/Focused Feasibility Study Work Plan
11 Evans Street Site (NYSDEC Site No. 819019)
Batavia, New York**

Matrix	Investigation Location		Estimated Number of Samples	TCL VOCs	TCL SVOCs	TAL Metals	Cyanide
Soil/Fill	TKMW-5	Subsurface	1	1	1	1	1
	TKMW-6		1	1	1	1	1
	TKMW-7		1	1	1	1	1
	TKMW-8		1	1	1	1	1
	TKMW-9		1	1	1	1	1
QA/QC	Soil	MS	1	1	1	1	1
		MSD	1	1	1	1	1
		Blind Dup	1	1	1	1	1

8	8	8	8	8
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Groundwater	TKMW-5	Groundwater	1	1	1	1	1
	TKMW-6		1	1	1	1	1
	TKMW-7		1	1	1	1	1
	TKMW-8		1	1	1	1	1
	TKMW-9		1	1	1	1	1
QA/QC	Groundwater	MS	1	1	1	1	1
		MSD	1	1	1	1	1
		Blind Dup	1	1	1	1	1
	Submersible Pump	Equipment Blank	1	1	1	1	1

9	9	9	9	9
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Notes:

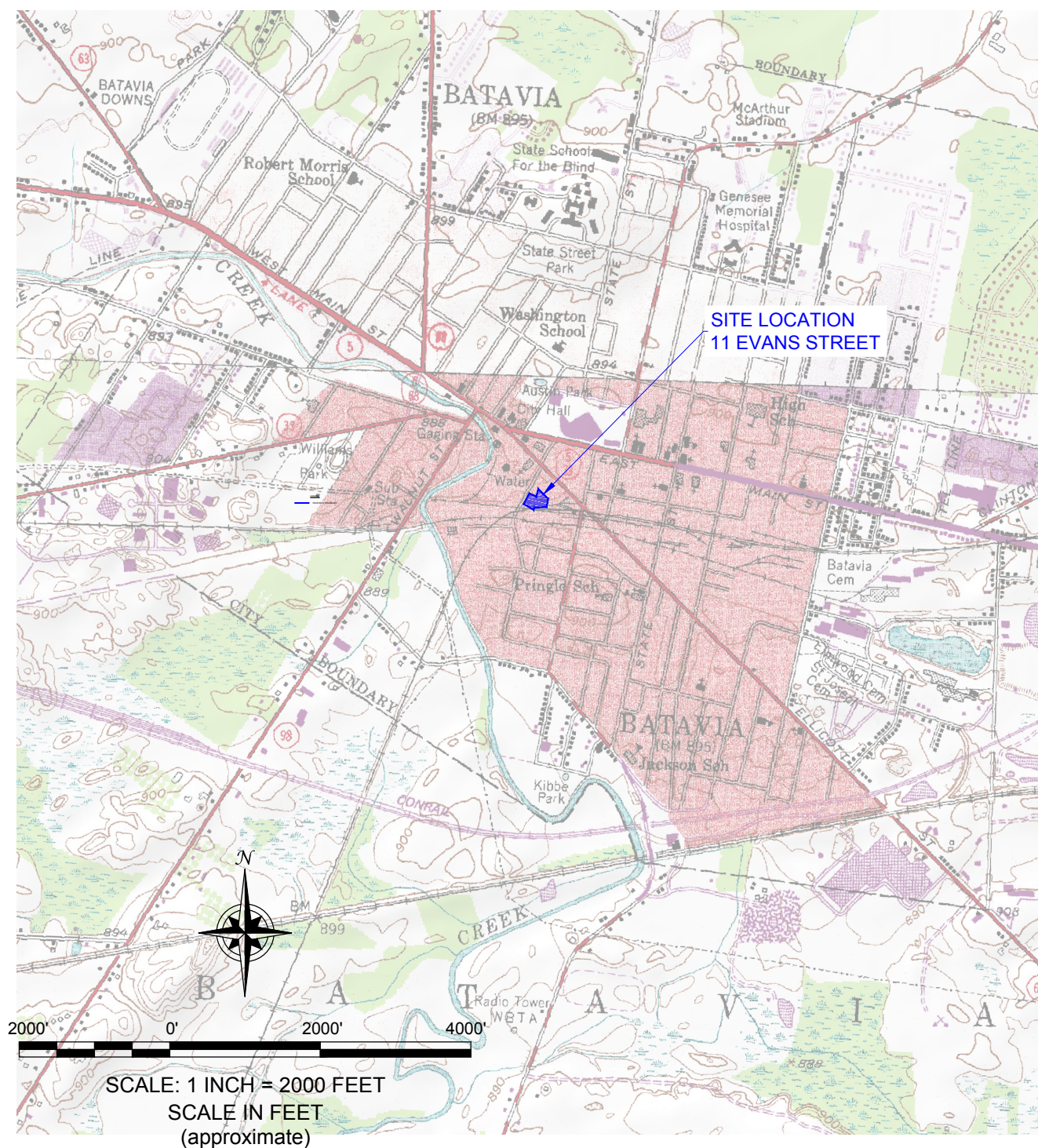
1. All locations shall be sampled and archived by the laboratory for potential analysis / reanalysis.
2. GW field parameters including: pH, specific conductance, temperature, DO, ORP, and turbidity will be collected and recorded.

Acronyms:

VOCs = volatile organic compounds
SVOCs = semi-volatile organic compounds
TCL = Target Compound List
TAL= Target Analyte List

FIGURES

FIGURE 1



2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

SITE LOCATION AND VICINTY MAP

REMEDIAL INVESTIGATION WORK PLAN

11 EVANS STREET SITE
NYSDEC SITE No 819019
BATAVIA, NEW YORK

PREPARED FOR

R&J ENTERPRISES OF BATAVIA, LLC

PROJECT NO.: 0333-015-001

DATE: MARCH 2016

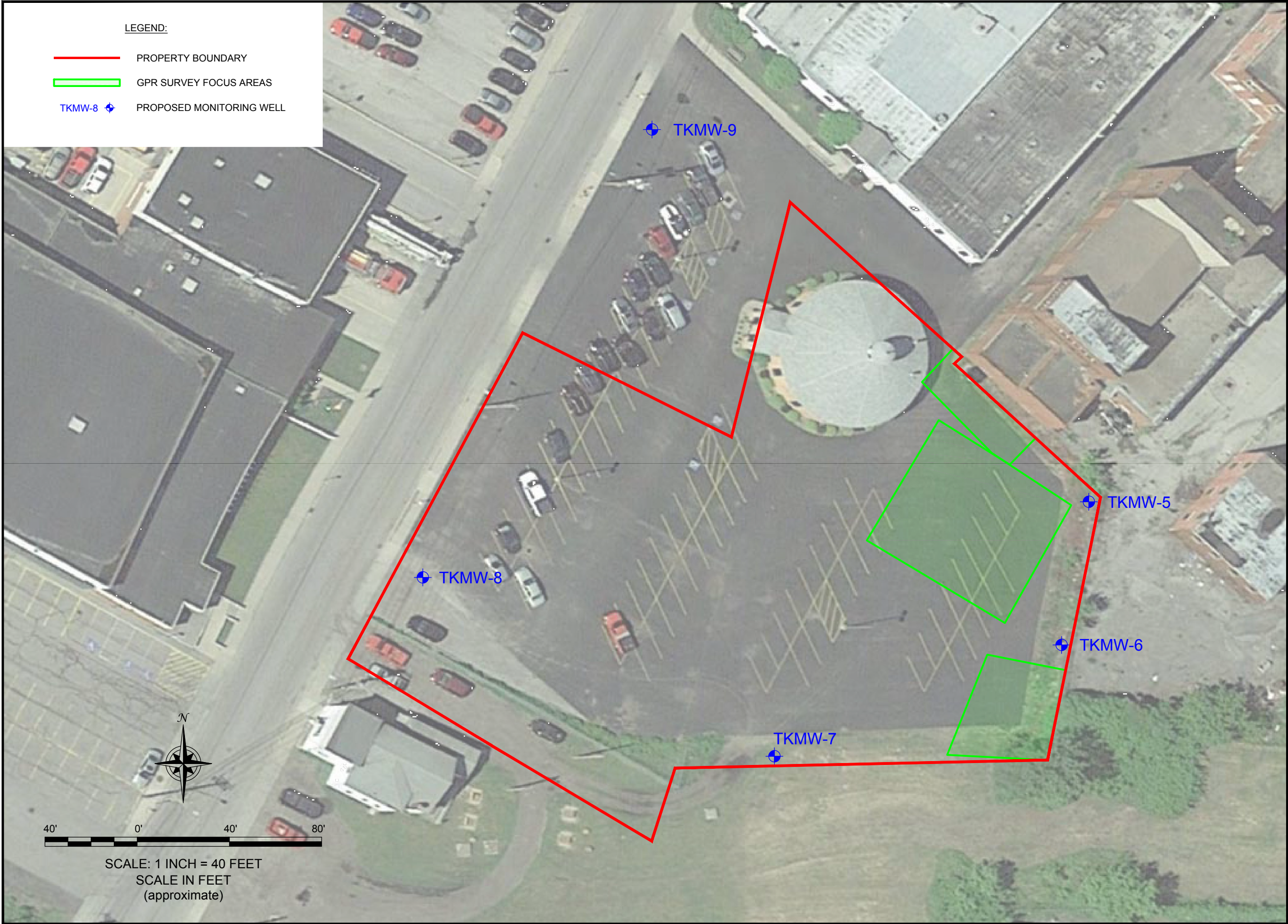
DRAFTED BY: KRR

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F:\CAD\TurnKey\B&J11 Evans (Former Batavia MGP)\SVI Report\Figure 2: Sample Location Map.dwg

DATE: MARCH 2016
DRAFTED BY: KRR



SITE BOUNDARY AND PROPOSED INVESTIGATION LOCATIONS

REMEDIAL INVESTIGATION WORK PLAN

11 EVANS STREET SITE
NYSDEC SITE No 819019
BATAVIA, NEW YORK

PREPARED FOR

R&J ENTERPRISES OF BATAVIA, LLC



2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

JOB NO.: 0333-015-001

FIGURE 2

DISCLAIMER: PROPERTY OF TURNKEY ENVIRONMENTAL RESTORATION, LLC. IMPORTANT: THIS DRAWING PRINT IS LOANED FOR MUTUAL ASSISTANCE AND AS SUCH IS SUBJECT TO RECALL AT ANY TIME. INFORMATION CONTAINED HEREON IS NOT TO BE DISCLOSED OR REPRODUCED IN ANY FORM FOR THE BENEFIT OF PARTIES OTHER THAN NECESSARY SUBCONTRACTORS & SUPPLIERS WITHOUT THE WRITTEN CONSENT OF TURNKEY ENVIRONMENTAL RESTORATION, LLC.

ATTACHMENT 1

Appendix 1A

New York State Department of Health Generic Community Air Monitoring Plan

Overview

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

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for VOCs and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate DEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

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

overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions, particularly if wind direction changes. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

1. If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.
2. If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
3. If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.
4. All 15-minute readings must be recorded and be available for State (DEC and NYSDOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

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

1. If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed $150 \text{ mcg}/\text{m}^3$ above the upwind level and provided that no visible dust is migrating from the work area.

2. If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than $150 \text{ mcg}/\text{m}^3$ above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within $150 \text{ mcg}/\text{m}^3$ of the upwind level and in preventing visible dust migration.

3. All readings must be recorded and be available for State (DEC and NYSDOH) and County Health personnel to review.

December 2009

Appendix 1B

Fugitive Dust and Particulate Monitoring

A program for suppressing fugitive dust and particulate matter monitoring at hazardous waste sites is a responsibility on the remedial party performing the work. These procedures must be incorporated into appropriate intrusive work plans. The following fugitive dust suppression and particulate monitoring program should be employed at sites during construction and other intrusive activities which warrant its use:

1. Reasonable fugitive dust suppression techniques must be employed during all site activities which may generate fugitive dust.
2. Particulate monitoring must be employed during the handling of waste or contaminated soil or when activities on site may generate fugitive dust from exposed waste or contaminated soil. Remedial activities may also include the excavation, grading, or placement of clean fill. These control measures should not be considered necessary for these activities.
3. Particulate monitoring must be performed using real-time particulate monitors and shall monitor particulate matter less than ten microns (PM₁₀) with the following minimum performance standards:
 - (a) Objects to be measured: Dust, mists or aerosols;
 - (b) Measurement Ranges: 0.001 to 400 mg/m³ (1 to 400,000 :ug/m³);
 - (c) Precision (2-sigma) at constant temperature: +/- 10 :g/m³ for one second averaging; and +/- 1.5 g/m³ for sixty second averaging;
 - (d) Accuracy: +/- 5% of reading +/- precision (Referred to gravimetric calibration with SAE fine test dust (mmd= 2 to 3 :m, g= 2.5, as aerosolized);
 - (e) Resolution: 0.1% of reading or 1g/m³, whichever is larger;
 - (f) Particle Size Range of Maximum Response: 0.1-10;
 - (g) Total Number of Data Points in Memory: 10,000;
 - (h) Logged Data: Each data point with average concentration, time/date and data point number
 - (i) Run Summary: overall average, maximum concentrations, time/date of maximum, total number of logged points, start time/date, total elapsed time (run duration), STEL concentration and time/date occurrence, averaging (logging) period, calibration factor, and tag number;
 - (j) Alarm Averaging Time (user selectable): real-time (1-60 seconds) or STEL (15 minutes), alarms required;
 - (k) Operating Time: 48 hours (fully charged NiCd battery); continuously with charger;
 - (l) Operating Temperature: -10 to 50° C (14 to 122° F);
 - (m) Particulate levels will be monitored upwind and immediately downwind at the working site and integrated over a period not to exceed 15 minutes.
4. In order to ensure the validity of the fugitive dust measurements performed, there must be appropriate Quality Assurance/Quality Control (QA/QC). It is the responsibility of the remedial party to adequately supplement QA/QC Plans to include the following critical features: periodic instrument calibration, operator training, daily instrument performance (span) checks, and a record keeping plan.
5. The action level will be established at 150 ug/m³ (15 minutes average). While conservative,

this short-term interval will provide a real-time assessment of on-site air quality to assure both health and safety. If particulate levels are detected in excess of 150 ug/m³, the upwind background level must be confirmed immediately. If the working site particulate measurement is greater than 100 ug/m³ above the background level, additional dust suppression techniques must be implemented to reduce the generation of fugitive dust and corrective action taken to protect site personnel and reduce the potential for contaminant migration. Corrective measures may include increasing the level of personal protection for on-site personnel and implementing additional dust suppression techniques (see paragraph 7). Should the action level of 150 ug/m³ continue to be exceeded work must stop and DER must be notified as provided in the site design or remedial work plan. The notification shall include a description of the control measures implemented to prevent further exceedances.

6. It must be recognized that the generation of dust from waste or contaminated soil that migrates off-site, has the potential for transporting contaminants off-site. There may be situations when dust is being generated and leaving the site and the monitoring equipment does not measure PM₁₀ at or above the action level. Since this situation has the potential to allow for the migration of contaminants off-site, it is unacceptable. While it is not practical to quantify total suspended particulates on a real-time basis, it is appropriate to rely on visual observation. If dust is observed leaving the working site, additional dust suppression techniques must be employed. Activities that have a high dusting potential--such as solidification and treatment involving materials like kiln dust and lime--will require the need for special measures to be considered.

7. The following techniques have been shown to be effective for the controlling of the generation and migration of dust during construction activities:

- (a) Applying water on haul roads;
- (b) Wetting equipment and excavation faces;
- (c) Spraying water on buckets during excavation and dumping;
- (d) Hauling materials in properly tarped or watertight containers;
- (e) Restricting vehicle speeds to 10 mph;
- (f) Covering excavated areas and material after excavation activity ceases; and
- (g) Reducing the excavation size and/or number of excavations.

Experience has shown that the chance of exceeding the 150ug/m³ action level is remote when the above-mentioned techniques are used. When techniques involving water application are used, care must be taken not to use excess water, which can result in unacceptably wet conditions. Using atomizing sprays will prevent overly wet conditions, conserve water, and provide an effective means of suppressing the fugitive dust.

8. The evaluation of weather conditions is necessary for proper fugitive dust control. When extreme wind conditions make dust control ineffective, as a last resort remedial actions may need to be suspended. There may be situations that require fugitive dust suppression and particulate monitoring requirements with action levels more stringent than those provided above. Under some circumstances, the contaminant concentration and/or toxicity may require additional monitoring to protect site personnel and the public. Additional integrated sampling and chemical analysis of the dust may also be in order. This must be evaluated when a health and safety plan is developed and when appropriate suppression and monitoring requirements are established for protection of health and the environment.