

April 1, 2011

Janet E. Brown, P.E. Project Manager NYSDEC Region 3 Division of Environmental Remediation 21 South Putt Corners Road New Paltz, New York 12561

Re: Preliminary Supplemental Investigation Work Plan Former Stewart Stamping Site 630 Central Park Avenue Yonkers, New York VCP Site No. V00691-3, VCA Index No. W3-1005-04-06

Dear Ms. Brown:

As discussed at the meeting on March 22, 2011, TRC Engineers, Inc (TRC), on behalf of Stewart EFI New York, LLC, has prepared this Preliminary Supplemental Investigation Work Plan for additional investigation of the Former Stewart Stamping Site located at 630 Central Park Avenue, Yonkers, New York (Tax Map Section 6, Block 6342, Lot 5; Block 6343, Lots 1, 25, 27, 47, 49, and 51; and Block 6344, Lots 1 and 2) (the "Site"). The proposed scope of work is described below. The purpose of the proposed scope is to collect information regarding existing conditions necessary to prepare a final, comprehensive supplemental investigation work plan for the Site.

The scope of work described below will be performed under a site-specific Health and Safety Plan.

Scope of Work

The scope of the Preliminary Supplemental Investigation consists of the following tasks, described in detail below:

- Task 1 Geophysical Survey
- Task 2 Visual Survey and Mapping of Former Process Wastewater Drainage System
- Task 3 Gauging and Sampling of Existing Groundwater Monitoring Wells

Ms. Janet E. Brown, P.E. Project Manager NYSDEC Region 3 April 1, 2011 Page 2 of 6

- Task 4 Sampling on Residential and Commercial Lots
- Task 5 Preliminary Supplemental Investigation Report

Task 1 – Geophysical Survey

A geophysical survey will be performed utilizing electromagnetic and ground penetrating radar (GPR) techniques to determine if there are subsurface utilities or st ructures which would interfere with the locations proposed for the soil borings. A geophysical surveyor, under subcontract and supervision of TRC, will clear an approximately 20-foot by 20-foot maximum area around each proposed boring location for the purpose of identifying subsurface utilities and structures prior to drilling. Additionally, geophysical techniques will be used inside the industrial building in an effort to map sub-slab wastewater drainage system piping and confirm former discharge locations. The findings of the geophysical survey performed inside the industrial building will be presented in the Preliminary Supplemental Investigation Report (refer to description of Task 5 below).

Task 2 - Visual Survey and Mapping of the Former Process Wastewater Drainage System

The objective of this task is to identify and map the locations of former process wastewater sumps, pits, floor and trench drains, and associated sub-slab piping in the industrial building. The purpose of this task is to confirm the former collection and discharge locations of process wastewater. The resulting information will be used to identify future soil sampling locations as part of the final supplemental investigation.

The locations of sumps, pits, and trench and floor drains will be visually identified and located on a floor plan using field measurements. The approximate dimensions (lengths, widths and depths) of sumps and pits will be recorded. Sub-slab piping will be located and mapped using the geophysical techniques described above under Task 1.

In addition, if a former process wastewater drainage pipe is identified and the associated discharge location cannot be established by geophysical techniques, dye-testing techniques may be utilized. A non-toxic dye manufactured for the intended purpose will be used.

Task 3 - Gauging and Sampling of Existing Groundwater Monitoring Wells

TRC will gauge and sample the five existing Site groundwater monitoring wells (refer to Figure 1). The primary purposes of the gauging and sampling are to confirm groundwater surface elevation gradients and characterize current groundwater quality conditions.

Upon opening each monitoring well, the concentration of volatile organic compounds (VOCs) in the headspace will be measured using a photoioni zation detector (PID). The depth to NAPL (non-aqueous phase liquid) (if present), depth to water, and the total depth of each well will be measured from the tops of the well casings using an electronic oil-water interface probe. Data



Ms. Janet E. Brown, P.E. Project Manager NYSDEC Region 3 April 1, 2011 Page 3 of 6

will be recorded in a field logbook. Depth to water measurements will be used to generate an updated groundwater surface elevation contour map (as part of Task 5).

A groundwater sample will be collected from each of the five existing monitoring wells utilizing low-flow groundwater sampling techniques. (If light non-aqueous phase liquid is detected in a well, a groundwater sample will not be collected from the well). Purging of monitoring wells will be performed utilizing a low-flow submersible stainless steel pump using dedicated Teflon-lined polyethylene tubing connected to a flow cell. Very low purging rates are proposed, on the order of 100 milliliters per minute (ml/min) to 500 ml/min, to minimize suspension of particulate matter in the well. The pump will be placed near the top of the water column during purging to prevent collection of stagnant water in the well, while not disturbing sediment that may have accumulated on the bottom of the well. Equipment will be lowered carefully into the well to prevent suspension of bottom sediment and subsequent entrainment onto sampling equipment. Surging will be avoided. Tubing will be replaced between each well.

Groundwater from each well will be purged until field parameters have stabilized. A turbidity level of fifty nephelometric turbidity units (NTUs) or less is the well purging goal, but not an absolute value. Other field parameters including temperature, conductivity, pH, and dissolved oxygen (DO) will also be monitored. Prior to sampling, field parameters should generally be within ± 10 percent for three consecutive readings, one minute apart. During purging, TRC will actively monitor the volume of water purged and the field parameter readings. Data will be recorded in the field logbook.

Once groundwater conditions have stabilized and groundwater elevation has recovered, groundwater samples for analysis for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), metals plus cyanide, polychlorinated biphenyls (PCBs), and pesticides will be collected using the low-flow pump. Pumping rates during withdrawal of the groundwater samples will be similar to well purging rates (100 ml/min to 500 ml/min). The groundwater samples will be collected in sample bottles (pre-preserved, if appropriate), sealed, labeled, placed in iced coolers and removed from light immediately after collection. Sample bottles will be filled to the top to prevent aeration of the samples during transport.

All down-well equipment and instrumentation will be carefully cleaned between wells by washing and scrubbing with an Alconox/water mixture, rinsing with tap water and irrigating with deionized water.

Groundwater samples will be analyzed for Target Compound List (TCL) VOCs, TCL SVOCs, field filtered and unfiltered Target Analyte List (TAL) metals plus cyanide (unfiltered), PCBs and TCL pesticides. Laboratory analysis will be performed by a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory. The laboratory will provide Category B delive rables. Quality control samples including duplicates, trip blanks, and field blanks will also be collected and analyzed. A trip blank will be placed in each sample cooler that contains groundwater samples for TCL VOC analysis and will



Ms. Janet E. Brown, P.E. Project Manager NYSDEC Region 3 April 1, 2011 Page 4 of 6

be analyzed for TCL VOCs. Duplicates and field blanks will be collected and analyzed at a minimum frequency of one per twenty samples. Data validation will be performed and a Data Usability Summary Report (DUSR) will be prepared.

Purge water and decontamination water from the groundwater sampling will be contained in steel 55-gallon drums and staged on-Site, pending receipt of the laboratory results.

The locations of monitoring wells will be re-surveyed and mapped by a land surveyor licensed to practice in the State of New York. The elevation of the top of each monitoring well casing will also will be surveyed. A to-sca le map will be prepared showing the locations and elevations of the tops of casings of the monitoring wells.

Task 4 - Sampling on Residential and Commercial Lots

Soil sampling will include the advancement of six soil borings in order to assess surface and subsurface conditions on the two residential lots (Block 6342, Lot 5 and Block 6343, Lot 51) and the commercial lot (Block 6344, Lots 1 and 2) (refer to Figure 1). The soil borings will be advanced by an environmental drilling subcontractor retained by TRC. Each boring will be advanced to the top of bedrock. The soil cuttings will be returned to their original location, as prescribed in DER-10, paragraph 3.3(e)(1) unless grossly contaminated. Soil exhibiting evidence of gross contamination will be segreg ated and stored separately in steel 55-gallon drums for characterization and off-site treatment/disposal. After filling, soil boring locations will be rough patched at the surface with concrete or asphalt, as applicable.

At each soil boring location, direct-push equipment will be used to advance 4- or 5-foot long 2inch diameter macro-core samplers to collect soil samples. Soil samples will collected continuously to top of bedrock from each boring. A TRC scientist will screen each soil sample for organic vapors utilizing a PID. Field observations, including evidence of contamination (i.e., odors, staining, NAPL, etc.), PID readings, and geological descriptions of each soil sample will be recorded in a field logbook.

The first (uppermost) discrete soil sample from each boring will be collected from beneath the asphalt pavement and sub-base material, 0 to 2 inches below the sub-base material, and submitted for laboratory analysis. The following is the planned methodology for selection of additional soil samples from each boring for laboratory analysis:

• The sample which represents the depth interval exhibiting the highest potential for contamination (based on field observations and PID readings), will be submitted for laboratory analysis. If no evidence of contamination is observed in a borehole (based on field observations and PID readings), the sample collected from directly above bedrock surface will be submitted for laboratory analysis.



Ms. Janet E. Brown, P.E. Project Manager NYSDEC Region 3 April 1, 2011 Page 5 of 6

• If indications of significant contamination are observed in a borehole (based on field observations and PID readings), a third sample from the first underlying apparent clean interval encountered may also be submitted for analysis.

An En CoreTM sampler will be used to collect soil samples that will be submitted for VOC analysis only. Other soil samples will be containerized in laboratory prepared jars. All soil samples collected will be labeled, sealed, and placed in a chilled cooler for shipment to the laboratory.

If groundwater is encountered above bedrock in a borehole, a temporary well point will be installed and a groundwater sample will be collected. Up to one groundwater sample will be collected from each of the three lots where soil sampling will be performed as shown on Figure 1. Dedicated 1-inch diameter polyvinyl chloride (PVC) well screen (temporary well point) will be inserted into the open borehole for sample collection. Clean, unused Teflon-lined polyethylene tubing will be lowered into the temporary PVC well and connected to a peristaltic pump (alternatively, a Geoprobe stainless steel check valve may be used). Prior to collection of a groundwater sample, purging will be performed until field parameters (temperature, conductivity, pH, and dissolved oxygen) are generally within ± 10 percent for three consecutive readings, one minute apart. During purging, TRC will actively monitor the volume of water purged and the field parameter readings. Data will be recorded in the field logbook. The groundwater samples will be collected in sample bottles (pre-preserved, if appropriate), sealed, labeled, placed in iced coolers and removed from light immediately after collection. Sample bottles will be filled to the top to prevent aeration of the samples during transport.

The soil samples and groundwater samples collected from temporary well points (if any) will be analyzed for TCL VOCs, TCL SVOCs, TAL metals plus cyanide, PCBs and TCL pesticides. Analyses of groundwater samples for TAL metals will be performed on both field filtered and unfiltered samples. Laboratory analysis will be performed by a NYSDOH ELAP certified laboratory. The laboratory will provide Category B deliverables. Quality control samples including duplicates, trip blanks, and field blanks will also be collected. A trip blank will be placed in each sample cooler that contains groundwater samples for TCL VOC analysis and will be analyzed for TCL VOCs. Duplicates and field blanks will be collected and analyzed at a minimum frequency of one per twenty samples. Data validation will be performed and a DUSR will be prepared.

Purge water and decontamination water will be contained in steel 55-gallon drums and staged on-Site, pending receipt of the laboratory results.

Task 5 – Preliminary Supplemental Investigation Report

TRC will prepare a Preliminary Supplemental Investigation letter report presenting the findings and results of the investigation. The letter report will document the results of the geophysical survey, the findings of the sampling effort, the results of the analyses of the soil and groundwater



Ms. Janet E. Brown, P.E. Project Manager NYSDEC Region 3 April 1, 2011 Page 6 of 6

samples, and include comparisons of the analytical data to the appropriate guidelines and regulations. Included in the report will be an updated groundwater surface elevation contour map and a drawing showing the locations of sumps, pits, trench and floor drains as well as subslab piping associated with the former process wastewater drainage system identified during implementation of Tasks 1 and 2.

The results of this investigation will be used to define the scope of work required for the final Supplemental Investigation Work Plan. If it is found that the results of the analyses of the soil samples collected on Block 6342, Lot 5 and Block 6343, Lot 51 are below 6 NYCRR 375 Restricted-Residentia I Soil Cleanup Objectives (SCOs) and the results of the analyses of the soil samples collected on Block 6344, Lots 1 and 2 are below 6 NYCRR 375 Commercial SCOs, no additional action will be proposed for the residential and commercial lots.

Schedule

Upon acceptance of this Work Plan by NYSDEC, TRC will prepare a site-specific Health and Safety Plan and arrange for the well gauging and sampling to begin immediately and the geophysical survey and mapping of the former process wastewater drainage system and soil sampling to be conducted as soon as the subcontractors are available. TRC will provide two (2) business days notice to NYSDEC prior to starting the field investigation activities. Laboratory data is expected to be received ten days after the date of delivery of samples to the laboratory.

We look forward to receiving the Department's approval of this Preliminary Supplemental Investigation Work Plan.

Please do not hesitate to contact me at (212) 221-7822 x102 if you have any questions.

Very truly yours, **TRC Engineers, Inc.**

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Jennifer Miranda Senior Project Manager

Attachment Figure 1 – Proposed Soil Boring Locations

cc: D. Stokes R. Celone

A. Perretta D. Glass



FIGURE

