

Mike Schmoller
Project Manager
Wisconsin Department of Natural Resources
South Central Region
3911 Fish Hatchery Rd
Fitchburg WI 53711

Subject:

Site Investigation Work Plan Addendum, Building Subsurface Investigation, Madison-Kipp Corporation, 201 Waubesa Street, Madison, Wisconsin. Facility ID No. 113125320, BRRTS No. 02-13-001569

Dear Mr. Schmoller:

On behalf of Madison-Kipp Corporation, a *Site Investigation Work Plan* (Work Plan) was submitted to the Wisconsin Department of Natural Resources (WDNR) on May 31, 2012 for approval to complete site investigation activities at the Madison-Kipp facility located at 201 Waubesa Street (Site). The WDNR provided a *Conditional Approval* letter dated June 25, 2012 for this Work Plan. On September 13, 2012, a Site Investigation Addendum was submitted to the WDNR documenting the details for installation and sampling of additional monitoring wells on and off site as agreed to at a technical meeting with the WDNR on August 23, 2012. This Site Investigation Work Plan Addendum presents proposed investigation activities to fill data gaps concerning potential source areas beneath the on-Site building floor.

Investigation Work Plan Addendum

The following sections present a description of the work to be completed as part of this addendum.

Proposed Soil Boring Advancement and Sampling

The proposed direct-push boring locations described in this addendum were selected following a site walk through and based on employee knowledge of historic Site operations. In summary, up to 38 soil borings are proposed for this investigation. The proposed soil boring locations are presented on Figure 1.

Historic facility operations have included the following potential sources areas: tetrachloroethene (PCE) aboveground storage tank, PCE wash tank areas, heat treat and quench pit area, cooling water pit, trench housing closed loop feed and

Imagine the result

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ENVIRONMENT

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September 28, 2012

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Our ref:

WI001283.0007

return lines for die lube, water, and air; die lube area; oil shed; oil storage; pressure wash spray booth; chemical storage area; and transformer room. Based on the locations of these areas, proposed investigation activities are summarized below.

It should be noted that the proposed boring locations depicted on Figure 1 are approximate. Deviations to the locations may occur based on impediments such as underground utilities and above-grade infrastructure.

The direct-push soil borings will be advanced using a hand-cart Geoprobe (or comparable equipment). Soil samples will be collected by driving a steel sampling rod (sampler) with acetate liners to the desired sampling depth using the hydraulic ram and hammer on the Geoprobe rig. Once the sampler reaches the desired depth, the sampler will be opened by removing a stop pin in the sampler. The sampler will be driven an additional 4 feet to push a soil sample into the sampler, preserving the sample in a 1.5-inch by 4-foot acetate liner inside the sampler. The acetate sleeves will allow continuous collection of soil samples from each boring.

Companion sampling will be completed at the proposed hand auger and direct-push soil boring locations by collecting two aliquots of soil from each sampling interval and placing each aliquot into a separate re-sealable plastic bag. One of the companion samples from each interval will be used for field screening for the presence of total ionizable volatile organic compound (VOC) vapors with a calibrated photoionization detector (PID). The screening samples will be warmed and the headspace PID reading of the soil taken by inserting the probe end of the PID into the plastic bag through the seal. The screened samples will be appropriately discarded; the unscreened companion samples will be used for preparing samples for analytical testing.

An ARCADIS scientist will oversee the drilling activities and visually screen and describe the condition and engineering properties of the soil. Soil descriptions and field screening PID results will be recorded on Soil Boring Logs (WDNR Form 4400-122) and Borehole Abandonment Forms (WDNR Form 3300-005) will be prepared in accordance with WDNR requirements.

Up to 38 soil borings will be completed with 19 locations advanced up to 16 feet and 19 locations advanced up to 8 feet below ground surface (ft bgs). Below is a summary of the sampling plan.

- Soil sampling will include the collection of two soil samples per boring advanced to 16 feet and one soil sample per boring advanced to 8 feet. Soil samples will be collected from the 2-foot interval with highest PID reading from

0 to 4 ft bgs and the 2-foot interval with the highest PID from greater than 4 ft bgs or the 2-foot interval at the bottom of the borehole if PID readings are below background. One soil sample will be collected at the 2-foot interval with the highest PID reading from the borings advanced to 8 feet.

- Soil samples will be collected and submitted for laboratory analysis of VOCs, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), Resource Conservation and Recovery Act (RCRA) metals, and total cyanide.

Piezometer Installation and Sampling

Up to two piezometers will be installed inside the building to evaluate groundwater quality. The boreholes will be advanced using a mini-sonic drill rig due to the physical constraints within the building. The locations of the wells will be determined based on the soil analytical results from the 38 soil borings. Below is a summary of the installation and sampling plan.

- Soil samples will be collected at 2-foot intervals from the top of the water table to the top of bedrock. The soils will be field screened for the presence of volatile compounds and the characteristics will be logged. Once bedrock is encountered, an 8-inch temporary casing will be set approximately 5 feet into competent bedrock. The bedrock will be blind drilled using sonic drilling methods. It is anticipated that the boring depths will reach a maximum of 100 ft bgs due to the limitation of the mini-sonic drill rig.
- Soil sampling will include the collection of two soil samples per boring for laboratory analysis. Soil sampling will include the collection of two soil samples per piezometer. Soil samples will be collected from the 2-foot interval with highest PID reading from 0 to 4 ft bgs and the 2-foot interval with the highest PID from greater than 4 ft bgs and above the water table or the 2-foot interval above the water table if PID readings are below background. The soil samples will be submitted for laboratory analysis of VOCs, PAHs, PCBs, RCRA metals, and total cyanide.
- Based upon the newly collected soil data and the existing groundwater information for the site, screen locations will be discussed with the WDNR. Each well will consist of a single screen and will be constructed and developed in accordance with NR141 Wis. Adm. Code. A 5-foot, 0.010-inch, stainless steel screen and Schedule 80 polyvinyl chloride riser will

likely be used. However, a 10-foot stainless steel screen may be installed. The wells will be completed at the surface with a flush-mount well compartment set in concrete. Well construction forms (WDNR Form 4400-113A) will be completed for each of the new wells.

- The new wells will be developed in accordance with NR 141 Wis. adm. code. The goal of well development is to produce water free of sediment, drill cuttings and drilling fluids. After a minimum waiting period of 12 hours after installation, the new wells will be developed using a surge and purge method or air lifting techniques. Well development forms (WDNR Form 4400-113B) will be completed for each of the new wells.
- Groundwater samples will be collected from the new wells using low-flow sampling techniques. Low-flow sampling techniques are used to collect representative water samples in the formation adjacent to the well screen while 1) reducing water turbulence which may unnecessarily volatilize contaminants; 2) reduce turbidity levels that may bias analytical results high; and 3) reduce the volume of water requiring management.
 - Low-flow sampling consists of purging the groundwater at a low-flow rate (less than 150 milliliters per minute) until a set of field parameters (dissolved oxygen, temperature, pH, conductivity, oxidation-reduction potential, and turbidity) stabilize within 10 percent for three consecutive readings. Purging will be completed using a peristaltic pump or a stainless steel bladder pump with dedicated polyethylene tubing, depending on the depth to water. Field parameters will be measured using a calibrated multi-parameter meter. Once the field parameters stabilize, the water sample will be collected. Nitrile gloves will be worn by the sampling personnel and discarded between each sampling location and following any activity that may produce cross-contamination.
 - The groundwater samples will be collected and submitted for laboratory analysis of VOCs, PAHs, PCBs, and dissolved RCRA metals. All containers and preservatives will be obtained directly from the analytical laboratories. Immediately after collection, the sample containers will be placed in a cooler with ice until shipment to the appropriate laboratory can be arranged. Standard chain-of-custody procedures will be followed throughout sample collection, storage, and shipment.

Surveying

A Wisconsin-licensed surveyor will locate the horizontal location of each boring to Wisconsin state plane coordinates and vertical elevation. Ground elevations will be surveyed to an accuracy of +/-1 foot.

Investigative-Derived Waste

Soil cuttings and decontamination water from cleaning down-hole equipment generated during the investigation will be containerized in appropriate steel 55-gallon drums or roll-off containers. Arrangements will be made with a licensed disposal facility for the transportation and disposal of the wastes.

Reporting

Following receipt of the soil analytical results, ARCADIS will prepare a data summary letter documenting the investigation activities. The summary letter will present the results of the field screening and analytical testing along with any recommendations. A complete summary of procedures and results as well as copies of all boring logs, borehole abandonment forms, and analytical reports will be submitted as part of the overall site investigation report following completion of all site investigation activities.

Schedule

The schedule for the scope of work detailed in this addendum will be determined based on availability of the subcontractors and Site operations. It is anticipated that this work will be completed in October/November 2012.

Mr. Schmoller
September 28, 2012

Closing

If you have any questions regarding this letter, please contact me at (414) 276-7742.

Sincerely,

ARCADIS U.S., Inc.



Toni Schoen
Senior Hydrogeologist

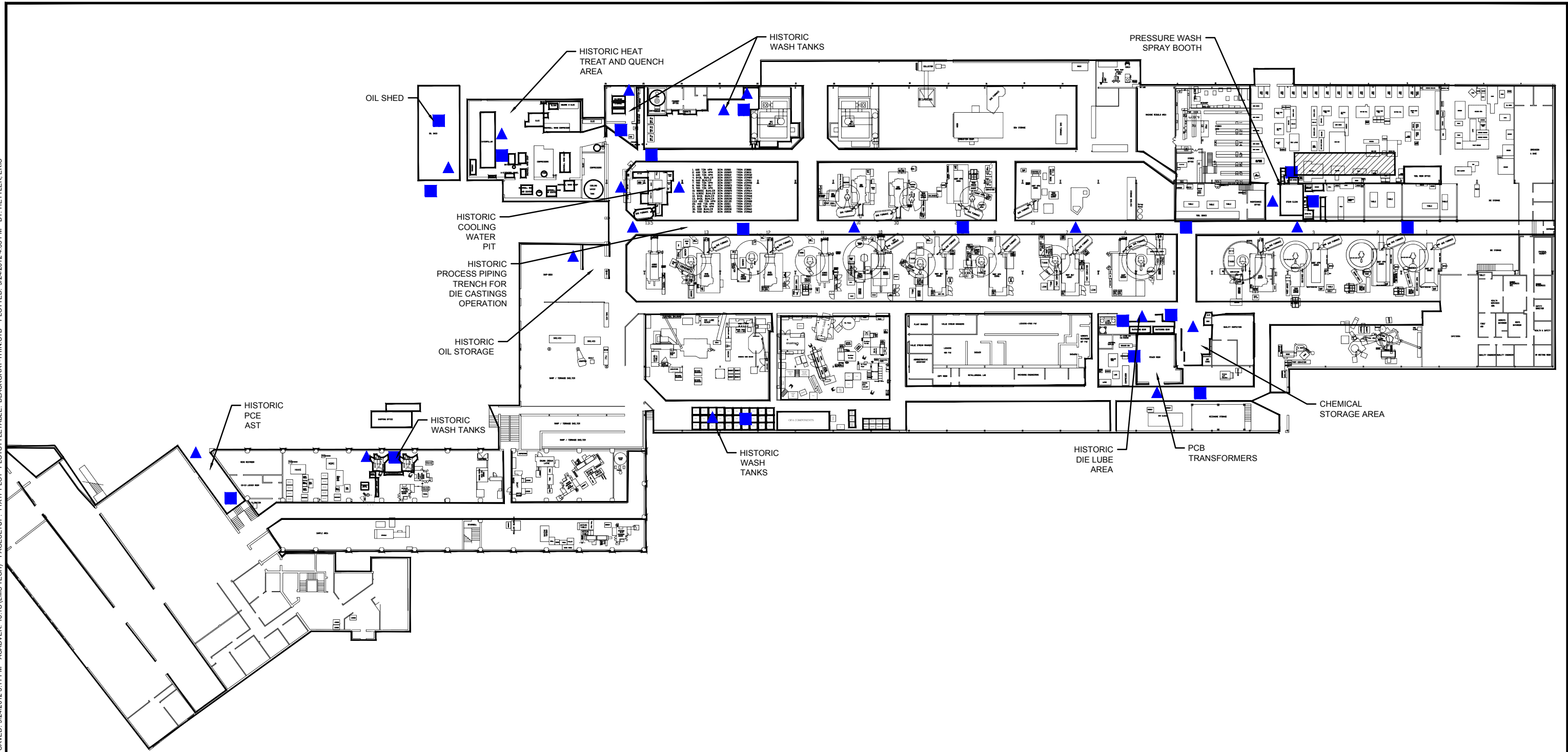


Jennine Trask, PE
Project Manager

Copies:

David Crass – Michael Best
Mark Meunier – Madison Kipp
Robert J. Nauta – RJN Environmental Services LLC (electronic)
Steve Tinker – Wisconsin Department of Justice (electronic)

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LEGEND:

- PROPOSED SOIL BORING UP TO 8 FEET
- ▲ PROPOSED SOIL BORING UP TO 16 FEET
- ASTs ABOVE GROUND STORAGE TANKS
- PCE TETRACHLORETHENE
- PCB POLYCHLORINATED BIPHENYL

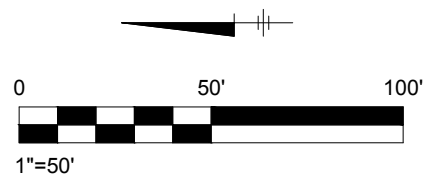


IMAGE PROVIDED BY MADISON KIPP CORPORATION

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 201 WAUBESA STREET
 MADISON, WISCONSIN

PROPOSED SOIL BORING LOCATIONS



FIGURE
1