From: Erica Klingfus <eklingfus@msa-ps.com>

**Sent:** Friday, January 04, 2019 3:06 PM

**To:** Smith, Ralph N - DNR

**Cc:** Saari, Christopher A - DNR; Jayne Englebert; Brian Hegge

**Subject:** [WARNING: ATTACHMENT(S) MAY CONTAIN MALWARE]02-07-000337 Webster VOC Contamination

Additional Actions Letter (Former Webster Quick Wash)

Attachments: 17644000 Ltr04 Smith Jan 2019.pdf

**Follow Up Flag:** Follow up **Flag Status:** Flagged

Ralph,

Please see attached a letter outlining additional actions proposed to be taken to address the Additional Actions Needed in the WDNR's Case Closure Not Recommended correspondence on October 18, 2018. As was discussed, MSA is requesting concurrence from the WDNR that these actions will satisfy the additional actions so that DNR concerns may be efficiently and effectively addressed.

Please direct any questions to Brian or Jayne.

Thank you,

Erica Klingfus



**Erica Klingfus** | Environmental Scientist MSA Professional Services, Inc.

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January 4, 2019

Ralph Smith Submitted by email: <a href="mailto:ralph.smith@wisconsin.gov">ralph.smith@wisconsin.gov</a> Wisconsin Department of Natural Resources 101 S. Webster Street Madison, WI 53703

Re: Webster VOC Contamination (Former Webster Quick Wash)

Railroad Avenue, Webster, WI WDNR BRRTS # 02-07-000337

Dear Mr. Smith:

Described below are the actions that our Client, Mr. Rand, proposes to address the Additional Actions Needed in the WDNR's Case Closure Not Recommended correspondence of October 19, 2018. As we discussed, MSA Professional Services, Inc. (MSA) is requesting concurrence from the WDNR that these actions will satisfy the additional actions so that we efficiently and effectively address WDNR concerns.

# Need to Define the Degree and Extent of Contamination

### Soil Contamination

MSA has had further discussions with people familiar with the property in an attempt to understand the historical progression of the property in regards to the construction of the buildings and where the spill of dry cleaning solvents may have occurred. As we have indicated in prior reports, the location of the dry cleaning apparatus was identified as being in the northwest corner of the middle apartment. However, this portion of the building had a basement that was subsequently filled with soil after the dry cleaning apparatus was removed. It is not logical to therefore expect that the soil beneath this portion of the building is a source of the contamination.

What we have recently discovered is that the furthest west apartment was constructed sometime in the 70's-80 after the dry cleaning business had closed. It is therefore possible that the discharge of waste solvents occurred in the area currently occupied by the 2-bedroom apartment, and more specifically, near a back door from the middle section of the building near the former dry cleaning apparatus. This would help explain the detection of the vapors beneath that concrete slab in this apartment.

There is a utility line that passes very close along the northern edge of the building that prevents performing a soil boring within several feet of the foundation. Performing borings through the apartment slab is not being

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considered due to the lack of information on where to focus the borings, the unknown location of the private utilities and risk to them, and the disruption to a residential occupant.

MSA is proposing that up to two soil borings be attempted as close to the northern foundation as possible. We will coordinate the borings with a private utility locator in an attempt to get closer to the foundation than the previous borings. We do not recommend any other borings on the west or south side of the building as the additional information discussed above indicates the discharge most likely occurred in close proximity to the former dry cleaning apparatus location near a back door.

Please see the additional discussion below in the Need to Conduct Remedial Action section of this correspondence.

### **Groundwater Contamination**

We understand that the WDNR considers the placement of the monitoring wells many years ago was based on identifying the source of the contamination in the area and not necessarily to provide information on a specific property or source and the subsequent extent and degree of the contamination emanating from that property. The DNR has expressed concern that the current well network has not adequately defined the extent and degree of the groundwater contamination from the Former Webster Quick Wash property.

While MSA understands the WDNR position, however we also believe the majority of the groundwater plume has been investigated and the extent and the degree is reasonably well defined. Rather than installation of permanent monitoring wells and have Mr. Rand incur those costs, we are proposing that grab groundwater samples be collected in specific locations to determine if contamination is present. If the grab groundwater samples detect contamination, we would then evaluate the installation of monitoring wells at a later date to further define the extent of groundwater contamination. If no contamination is found above regulatory compliance concentrations, these results would then be used to define the extent of the groundwater plume and support site closure.

The grab groundwater samples would be collected using GeoProbe's SP-16 system which is driven into the aquifer by the drill rig and when the desired depth is reached, the tool is opened by pulling back on the body of the tool and groundwater flows from the surrounding formation into the screened sample chamber. Groundwater samples from shallow (i.e., 30 feet or less) are then withdrawn using a peristaltic pump. Deeper groundwater samples would be collected using a sampling tube with a check valve. All of the sampling equipment would be decontaminated between sampling, and both field blanks and equipment blanks would be collected to document decontamination.

The attached figure illustrates the locations of the proposed grab groundwater sampling locations. These locations are intended to determine the concentration of VOCs to the north, northwest, southwest and south of the property. No soil sampling is proposed in these borings. For the borings near the source property, a grab groundwater sample will be collected at the water table and analyzed for VOCs. For the downgradient locations to the

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west, northwest, and north, a second sample will be collected at an approximate depth of 60 to 65 feet to test the deeper zone equivalent to the screened areas in the existing piezometers at the site.

## Need to Complete a Vapor Investigation

The properties to the immediate northwest and southwest of the property have had vapor sampling conducted, with no vapors found above regulatory concentrations. We interpret this requirement of the Additional Actions request to be related to further definition of the groundwater contaminant plume. We propose that additional vapor investigation be delayed until the results of the grab groundwater results can be evaluated to determine if this vapor sampling is necessary due to a larger groundwater plume than previously defined. If we are incorrect in this assumption, please let us know so that an appropriate action can be considered concurrent with the other actions discussed in this correspondence.

### **Need to Conduct Additional Groundwater Monitoring**

Two (2) rounds of quarterly groundwater sampling will be conducted to obtain additional data to evaluate natural attenuation and contaminant trends (i.e., stable or receding plume) in the following nine (9) monitoring wells.

- 91-1, 91-2A, 91-2B, 91-5A, 91-5B, 91-6, 91-7, OW-1 and OW-2.
- The nine (9) groundwater samples collected each round would be analyzed for VOCs.
- Field natural attenuation parameter will be conducted on the monitoring well samples for pH, temp and dissolved oxygen.

### **Need to Conduct a Remedial Action**

As stated above in our discussion, we are not optimistic that a "source" of the contamination can be identified on the property. We recognize the elevated vapors underneath the apartment suggest the presence of a source, but actually finding that area and obtaining a soil sample will be challenging. As discussed above, two borings will be completed along the northern foundation in the suspected area in an attempt to find the source, or at least a part of it.

In order to address the source area and the need to conduct a remedial action, MSA proposes that a pilot SVE test be conducted in the soil borings completed alongside the foundation. The pilot test would determine if the actual source is a sustainable source of contamination and that the installation of a system as a remedial action is feasible and warranted. It would basically address both the WDNR requests for Additional Actions about the source and if a remedial action is necessary to close the site. If concentrations warrant the installation of a SVE system or conducting a remedial action, the pilot system can be left on-site and an operation and maintenance schedule can be determined.

MSA proposes that two inch PVC wells be installed in each soil boring upon completion of sampling. One of the borings will be screened from approximately 5 to 15 feet; the second

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boring will be screened from 20 to 30 feet. The pilot test will be conducted in each well separately first, with vapor sampling to determine if there is a difference in VOC concentrations with depth. Then the SVE pilot test will continue with both wells connected to the system, with additional VOC testing at the end of the test. In addition to the VOC testing, MSA will collect data on air flow rates and other system parameters, and also measure vacuums at surrounding wells to determine the range in influence of the pilot test.

Thank you for allowing Mr. Rand and MSA to present these tasks to address the Additional Actions for the property. Getting concurrence saves time and costs as we can then focus on the specific actions to get site closure.

Please contact me if you have any questions or require additional information.

Sincerely,

MSA Professional Services, Inc.

Brian Hegge Project Manager

BJH/jae

Cc: Chris Saari, WDNR, by email

Jayne Englebert, MSA, by email Erica Klingfus, MSA, by email Jerry Rand, by mail and email

Attachments (as noted)

