VERTEX®

DATE: June 10, 2021

TO: Benson R. Gould, LSP, LEP
CMG Environmental, Inc.
67 Hall Road
Sturbridge, MA 01566

FROM: Kristen Sarson, Project Manager
William J. Gibbons, PG, LSP, Senior Project Manager

SUBJECT: Notice of Response to Public Comment
Release Abatement Measure Plan
Release Abatement Measure Interim Status Report
484 – 490 Boston Post Road
Wayland, Massachusetts 01778
MassDEP Release Tracking Number (RTN) 3-36013

Dear Mr. Gould:

Please find enclosed a summary and response to the comments received on the two above-referenced RAM reports prepared by The Vertex Companies, Inc. (VERTEX) on behalf of Alta River's Edge, LLC. The two RAM reports and comments were prepared for the release listed by the Massachusetts Department of Environmental Protection (MassDEP) under Release Tracking Number (RTN) 3-36013.

A copy of the summary is also available for review at the following links:
https://vertexeng.com/rivers-edge-public-involvement-plan-public-repository/
https://eeaonline.eea.state.ma.us/portal#!/wastesite/3-0036013
or at the Town of Wayland Town Clerk's Office in the Wayland Town Hall, located at 41 Cochituate Road in Wayland, Massachusetts.

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

Thank you,

The Vertex Companies, Inc.

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Copied

- The Town of Wayland Board of Selectmen (c/o Town Administrator Louise L.E. Miller, J.D.)
- The MassDEP – Northeast Region, Bureau of Waste Site Cleanup (c/o Leticia Ruiz-Boyle)

Public Comments
Release Abatement Measure (RAM) Plan &
RAM Interim Status Report No. 1
River's Edge
484 – 490 Boston Post Road, Wayland, MA
RTN 3-36013

Overview Comments

1.) Comment: "The RAM Plan page header accurately numbers text pages 1-20 (pages 6-25 of the 1,537-page Adobe .pdf file) but then restarts page numbering so that text pages 21-43 are numbered 1-23 (pages 26-48 of the .pdf file); in other words there are two sets of pages 1-20. This makes it a bit more difficult to identify the location of information in the second half of this document's text."

- **Response:** The page numbering will be correct in future reports.

2.) Comment: "VERTEX uses the jargon term "Urban Fill" on page 5 (and again on page 11) of the RAM Plan. Section 310 CMR 40.0006(12) of the MCP currently defines the term "Historic Fill" (along with the related term "Anthropogenic Background") to describe what CMG believes that Vertex means by 'Urban Fill' (which is common usage among environmental consultants). We recommend that for clarity Vertex use the MCP-defined terminology where appropriate."

- **Response:** Urban fill was used in lieu of the MCP defined Historic Fill to describe the stockpiled material at the property because it is assumed that some or all of the soils were emplaced after 1983.

3.) Comment: "The last bullet item (in the lists of laboratory analyses conducted) in each of these subsections (page 8 of the RAM Plan) is "Asbestos content by California Air Resources Board (CARB) 435 Method," implying that Con-Test Analytical Laboratory (Con-Test) of East Longmeadow, Massachusetts conducted these analyses. However, Vertex submitted samples for asbestos testing to CEI Labs, Inc. of Cary, North Carolina (Con-Test did perform the other listed analyses).

- **Response:** Correct. This will be clarified on reports going forward.

4.) Comment: **"**The second paragraph on the second text page 9 (i.e., page 29) of the RAM Plan discusses whether or not the Site is in a drinking water source area. This is properly a matter of interest for *human* receptors (not environmental receptors).

Vertex also states that they reviewed registered wells listed by the DEP online well database (at https://mass.gov/service-details/well-database according to the footnote on this page). CMG believes that is an outdated URL; the current URL is https://eeaonline.eea.state.ma.us/portal#!/search/welldrilling More importantly, this listing of registered wells is not a complete listing of all private supply wells in the state. CMG researched private well information from the Wayland Board of Health and learned there are no known private wells (registered or otherwise) located within 500' of the Site (see Section 1.2.8 of our December 2020 Phase I – Initial Site Investigation report for release tracking number [RTN] 3-36013)."

- **Response:** VERTEX agrees that the information about the drinking water resource area and wells would have been more suitably presented in a discussion about human receptors. This has been noted and in the future will be addressed in discussions about potential human receptors.

5.) Comment: **"**Vertex discusses soil stabilization to reduce total lead leachability on the second text page 14 (i.e., page 34) of the RAM Plan. However, it is not clear whether Vertex intends stabilized (but still lead-impacted) soil to be removed from the Site for proper disposal or recycling, or if they intend for that soil to be reused on-Site. Wayland requests that any soil excavated from the Site which exhibits an exceedance of the RCS-1 standard of 200 mg/kg total lead be transported off-Site for proper disposal or recycling (or off-Site reused), regardless of whether that soil is stabilized or not."

- **Response:** The soil historically stockpiled at the Site by the Town of Wayland will be removed from the Site and all stabilized soil will be removed from the Site. The firing range remediation will achieve soil exposure point concentrations that do not exceed the Massachusetts Contingency Plan (MCP) Method 1 S-1 risk standard of 200 milligrams per kilogram of total lead and will therefore pose a condition of No Significant Risk without any future use restrictions.

6.) Comment: **"**Vertex states on page 4 of the Status Report that "The CARB 435 sample preparation method involves an initial grinding process" to homogenize soil samples. CMG did not find that information during our review of the published methodology (California Environmental Protection Agency Air Resources Board Method 435, "Determination of Asbestos Content of Serpentine Aggregate" Adopted:

June 6, 1991). We are concerned that this initial grinding process has the potential to break asbestos fibers into pieces too small for polarized-light microscopy (PLM) to recognize asbestos fibers. (PLM may not recognize fibers <5 µg in length as potentially asbestos. Furthermore, the CARB 435 method specifies that asbestos fibers have at least a 3:1 aspect ratio; grinding could change the fibers' aspect ratio by shortening them but not affecting their width.) The Town of Wayland relied on the asbestos in soil testing that Vertex conducted for closure of RTN 3-34474 at the Site. Therefore, the Town requests that Vertex clarify what controls the laboratory used during the grinding process to ensure that any asbestos fibers present prior to grinding would still be recognized as such during PLM."

- **Response:** The CARB 435 method prepares the sample so that the majority of the particles are less than 75 microns in diameter because particles greater than 75 microns are difficult to analyze by PLM and analysis of particles having diameters greater than 75 microns can result in false negatives (i.e. can result in an under count of asbestos fibers). Furthermore, pursuant to Section 7.0 of the CARB 435 (more specifically 7.1 and 7.3) method, each sample is observed under a stereomicroscope both before and during the sample preparation/grinding phase. Particularly with chrysotile, amosite, and crocidolite asbestos (by far the most common types), fibers are often identifiable before analysis by PLM. The analyst observes aliquots of the sample under the stereomicroscope before, during, and after the sample is ground to homogenize it. If a suspect fiber is spotted under the stereomicroscope, the analyst would prepare a slide for the PLM scope to confirm it is asbestos. If this happens, the result of the sample would immediately become "asbestos-containing" and the analyst would then go on to homogenize the sample and quantify it through the 400 point count method. Additionally, CEI Labs, Inc. (now a Eurofin Laboratory) performs the grinding using a mortar and pestle; machinery and/or automatic grinding is not utilized. Based on the use of a mortar and pestle, it is extremely unlikely that asbestos fibers would be broken apart to a size that is too small to identify via PLM. Chrysotile asbestos (again, by far the most common of asbestos types) is serpentine and wavy which makes it very resistant to mechanical force and tearing, and even the more brittle types of asbestos are unlikely to be broken into pieces smaller than 5 microns this way. The grinding is only meant to homogenize the sample, not break it down into dust, i.e., the analyst or preparation technician avoids using excessive force when grinding the sample up. The homogenized volume of each sample prepared by the CARB 435 method is 1 pint (473 cubic centimeters (cc)), greater than the 50 cc sample volume that would be analyzed by USEPA 600 /R-93/116 PLM method if that method were to be

used alone. The greater sample volume increases the likelihood that asbestos will be detected if present.

Section 8.2 of the CARB 435 method summarizes that there are many additional steps that go into identifying/confirming an asbestos fiber besides morphology and aspect ratio. This includes color and pleochroism, birefringence, sign of elongation and refractive index, etc. Even if a particular fiber were broken down to less than 5 microns and less than a 3:1 aspect ratio, there are additional distinguishing characteristics that would result in it being flagged as "asbestos-like" that would prompt the analyst to analyze additional portions of the homogenized sample to confirm asbestos is present. If such fibers are identified, the sample would be reported as asbestos-containing at the least, even if the asbestos cannot be quantified. Lastly, the laboratory has a quality assurance / quality control (QA/QC) protocol that requires the sample analyst to either reanalyze their own samples or give 10-20% of their samples to another analyst to QC, or both. Regardless of whether asbestos is identified under the stereomicroscope or preliminary PLM analysis, the analyst is required to quantify via the 400-point count a minimum of eight individual slide preparations from among their stereomicroscope aliquots and count 50 point in each slide. If they spot a suspect fiber in their fields during this process, they would immediately try to confirm if it is asbestos even if it didn't fall on a counting "point." The CARB 435 method is approved by the United States Environmental Protection Agency (USEPA) for the analysis of soil for asbestos. The MassDEP has not approved a specific method for the analysis of asbestos in soil.

7.) Comment: "On pages 7 and 13 of the Status Report, Vertex states that the next RAM Status Report is scheduled for submittal on May 8, 2021. CMG notes that May 8, 2021 will fall on a Saturday. While it is certainly possible to submit documents via eDEP on non-business days, we believe it would be more appropriate to state either "by May 8, 2021" or "on or before May 8, 2021" when referring to the submittal date of the next Status Report [which should be an Initial RAM Status Report per 310 40.04445(1)]."

- **Response:** In accordance with 310 CMR 40.0008, if the due date is on a weekend, legal holiday, or any other day on which the offices of the MassDEP are closed, the time period shall run to the end of the next business day. Vertex recognizes the statement and will be sure to include clarification that if the due date of a submittal is on a weekend it will be submitted on the first business day that follows the due day.