Memorandum

To: Michael Murray, Campobasso Properties, LLC

CC:

From: Jonathan Moore

Date: April 25, 2017

Re: Phase I/II Summary of Findings – 483 Summer Street, Arlington, Massachusetts

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PHASE I ENVIRONMENTAL SITE ASSESSMENT

Omni Environmental Group performed a Phase I Environmental Site Assessment for 483 Summer Street in Arlington, Massachusetts. The Property is identified by the Town of Arlington Assessor's Office as Map 82, Block 3 and Lot 3 (the "Property"). The Phase I Environmental Site Assessment was undertaken to evaluate the possible presence of "Recognized Environmental Conditions", as defined in ASTM International E1527. Recognized Environmental Condition is defined in E1527-13 as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."

Recognized Environmental Conditions

Based on our evaluation of current Property conditions and our review of available Property records, Omni Environmental Group identified the following Recognized Environmental Conditions as part of the Phase I Environmental Site Assessment:

- From approximately 1956 until at least 1989, the Property operated as an automobile service and fueling station. Fueling operations ceased on or before 1991. From 1991 until 2014, the Property was used for automotive repair. Since 2014, the Property has been used for storage.
- Six underground storage tanks (USTs) were removed from the Property in January 1991. The USTs included two 3,000-gallon gasoline USTs, two 2,000-gallon gasoline USTs, a 500-gallon waste oil UST and a 1,000-gallon fuel oil UST. The gasoline and fuel oil USTs were situated to the north of the building and the waste oil UST was situated to the west of the building.

- Omni Environmental Group observed a floor drain/oil water separator within the building which appeared to be connected to a subsurface basin on the west side exterior of the building. We did not observe effluent piping within the basin; however, it is reportedly connected to town sewer.

PHASE II ENVIRONMENTAL SITE ASSESSMENT

In order to evaluate the Recognized Environmental Conditions, Omni Environmental Group installed 24 soil borings across the Property as part of the Phase II Environmental Site Assessment. We completed 4 of the borings as monitoring wells. We submitted soil samples from 18 soil borings and groundwater samples from 3 monitoring wells to a laboratory for analysis of petroleum, volatile organic compounds and/or lead. Select samples were analyzed for additional compounds.

- A soil sample collected from grade to 4 feet below grade within the former gasoline and fuel oil UST area, contained benzo(a)pyrene at a concentration slightly higher than the Massachusetts Department of Environmental Protection's (MassDEP's) Reportable Concentration. The source of this compound may be coal and/or coal ash which was present near the ground surface. Samples from 3 additional borings installed around this boring contained benzo(a)pyrene concentrations which were, in all cases, less than the MassDEP Reportable Concentration.
- A soil sample collected from 8 feet to 12 feet below grade within the former gasoline and fuel oil UST area contained a petroleum fraction at a concentration slightly higher than the MassDEP's Reportable Concentration. The source of the petroleum fraction appears to be the former USTs. Samples from 4 borings installed on each side of this boring contained petroleum concentrations which were, in all cases, less than the MassDEP Reportable Concentration.
- A soil sample collected from 12 feet to 16 feet below grade adjacent to the floor drain basin contained a lead concentration which exceeded the MassDEP's Reportable Concentration. The source of the lead appears to be fill material containing coal and debris. Numerous samples from borings installed on each side of this boring and elsewhere across the Property contained lead concentrations which were, in all cases, less than the MassDEP Reportable Concentration.
- Except for the aforementioned 3 compounds in 3 separate samples, soil samples collected at the Property contained analyte concentrations below their associated Reportable Concentrations.
- Laboratory analysis of groundwater samples collected from monitoring wells MW-1 through MW-3 did not detect any analytes in groundwater at concentrations exceeding applicable MassDEP Reportable Concentrations.

DISCUSSION

Soil

- Three compounds in soil exceed their associated MassDEP Reportable Concentration; a petroleum fraction, benzo(a)pyrene, and lead. Reportable Concentrations for these compounds are described in the MassDEP's Massachusetts Contingency Plan regulation (MCP; 310 CMR 40.0000). As required by the MCP, we have collected samples to determine the extent and magnitude of these three compounds in soil and groundwater and we have evaluated the risk of harm to human health and the environment posed by these three compounds, given their extent and magnitude at the Property.
- For each of the three compounds, only one sample exceeded the Reportable Concentration (three samples total), while all other samples collected at the Property did not exceed the Reportable Concentration. The volume of soil which contains compound concentrations which exceed the Reportable Concentration is limited in extent, well-defined and is not representative of soil conditions across the larger Property.
- The approximate volume of soil which contains a concentration which exceeds a Reportable Concentration is 160 cubic yards for both the petroleum fraction and benzo(a)pyrene, and 40 cubic yards for lead.
- We calculated the risk of harm to human health and the environment using a Method 1 risk characterization as described in the MCP. We compared concentrations of the three compounds (called exposure point concentrations) to Method 1 soil standards established by MassDEP. The Method 1 soil standards are considered by the MassDEP to be protective of human health and the environment and consider such things as direct contact with the soil, the potential of compounds to leach to the groundwater, as well as other factors.
- The exposure point concentration for each compound detected in soil at the Property is less than its associated Method 1 soil standard. As a result, the MassDEP considers these compounds to pose "No Significant Risk" within the meaning of the MCP regulation. Accordingly, removal or treatment of the affected soil is not necessary; the soil can remain at the Property.
- Soil which needs to be removed from the Property to facilitate development will need to be transported under a MassDEP Bill of Lading to an appropriate disposal facility if that soil contains the petroleum fraction, benzo(a)pyrene or lead at a concentration which exceeds its associated Reportable Concentration. Soil which does not contain these compounds at concentrations above their associated Reportable Concentrations is not regulated under the MCP.

Groundwater

- Groundwater samples did not contain concentrations of any analytes which exceeded their associated Reportable Concentration.

- The Method 1 risk characterization soil standards consider the potential for compounds in soil to leach into groundwater. The exposure point concentrations for compounds present in soil at the Property are below their associated Method 1 soil standards which indicates the MassDEP does not consider leaching from soil into the groundwater to be a significant transport mechanism at the Property.
- Groundwater analytical data contained concentrations of the petroleum fraction, benzo(a)pyrene and lead that were, in all cases, below their associated Reportable Concentrations. The data indicates that significant concentrations of these compounds are not present in groundwater.
- The highest concentrations of the petroleum fraction and benzo(a)pyrene in soil are present in an unpaved area of the Property and are subject to potential leaching via infiltration of rainwater. Groundwater samples collected in this area indicate that the petroleum fraction and benzo(a)pyrene significant leaching of these compounds from soil into groundwater is not occurring.
- The highest concentration of lead in soil is at a depth below the groundwater table. Two groundwater samples from this location contained lead concentrations below its associated Reportable Concentration. The data indicates that significant leaching of lead into groundwater is not occurring.

Regulatory Outcome

- The data discussed above will allow us: 1) to demonstrate that a Condition of No Significant Risk exists at the Property within the meaning of the MCP; and 2) to submit a Permanent Solution Statement to the MassDEP which will "close" the environmental case under the MCP.