



ARM Group Inc.

Engineers and Scientists

December 27, 2019

Ms. Barbara Brown
Project Coordinator
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, MD 21230

Re: Phase II Investigation Work Plan
Area B: Parcel B24 (Revision 0)
Comment Response Letter
Tradepoint Atlantic
Sparrows Point, MD 21219

Dear Ms. Brown:

On behalf of EnviroAnalytics Group, LLC (EAG), ARM Group Inc. (ARM) is providing the following responses to a set of comments received from the Maryland Department of the Environment (MDE) in an email dated September 9, 2019 regarding the submission of the Phase II Investigation Work Plan (Revision 0 dated June 28, 2019) for Parcel B24 of the Tradepoint Atlantic property located in Sparrows Point, Maryland. This letter provides responses to these comments and demonstrates that the requested changes to the sampling plan have been made in a satisfactory manner. A revised Phase II Investigation Work Plan (Revision 1), which includes the recommended changes to the Parcel B24 sampling plan, is provided along with this letter. Responses to the comments are provided below; the original comments are included in italics with responses following.

- 1. Parcel B14, NAPL piezometer B14-037-PZ has contained measurable NAPL. This piezometer is located adjacent to the emergency detention basin portion of HCWWTP. Add a soil boring and piezometer location approximately 40 feet west of B14-037-PZ, within the B24 parcel, to investigate conditions nearby this known NAPL area.*

An additional location, B24-034, has been added in the location requested to target the adjacent NAPL detection area. Soil and groundwater samples will be collected from this location.

- 2. Is it possible to collect a sample of the sludge material within the emergency detention basin, without risk of penetrating the composite liner? Are there details regarding how this basin is constructed? Depth of liner? Depth of sludge material within the basin?*

The emergency detention basin's construction details are generally unknown. Samples will not be collected from within the detention basin as it is part of an operational National Pollution Discharge Elimination System (NPDES)-permitted treatment facility. Locations B24-027, B24-028, and B24-029 will be completed outside of the emergency detention basin to assess the basin's impacts to the surrounding areas.

- 3. If present, is it possible to collect a sample of sediment within Settlement Basin No. 3? If it is not possible to collect samples within this settlement basin, add a soil boring location immediately to the west of the basin and advance the boring to a depth below the known bottom of the sediment basin.*

No samples will be collected from within either of the settling basins as they are part of an operational NPDES-permitted facility. Location B24-037 has been added immediately to the west of Settling Basin 3. Historic construction drawings show the settling basins have a depth of 17 feet below ground surface (bgs). Soil samples will therefore be collected from the 0 to 1 foot, 4 to 5 foot, 9 to 10 foot, and 17 to 18 foot bgs intervals at locations B24-025, B24-026, and B24-037. The water table is expected to be encountered above the bottom interval, but deep soil samples will still be collected from these select locations.

- 4. Add additional soil boring locations and piezometers along Riverside Drive to investigate conditions along the shoreline with Bear Creek.*

Two additional soil boring locations (B24-035 and B24-036) have been added to the western side of Riverside Drive to investigate the Bear Creek shoreline.

- 5. Soil borings being advanced to investigate any sludge pits must be completed to a depth sufficient to define the vertical boundary of the pits, if applicable.*

Historical construction drawings show the settling basins have a total depth of 17 feet bgs. Soil borings investigating the settling basins (B24-025, B24-026, and B24-037) will be completed to a depth of 20 feet bgs.

- 6. TS03-PPP003 was last inspected in 2016. Conditions may have changed since this inspection date. Notify MDE if there are any issues that prevent this location from being sampled. It may be necessary to install a temporary piezometer in this location to collect a groundwater sample. In the event that the well is damaged and unsuitable for sampling, the well would need to be properly abandoned.*

The well was re-inspected in October 2019 and was found to be in unsuitable condition for sampling. An additional groundwater sample will be collected from the additional soil sample location requested by MDE to investigate the shoreline of Bear Creek, B24-035. This location is less than 150 feet from the historical well location. The historical well will be abandoned according to the applicable regulations.



If you have any questions, or if we can provide any additional information at this time, please do not hesitate to contact ARM Group Inc. at 410-290-7775.

Respectfully submitted,
ARM Group Inc.



Ryan Clancy
Staff Engineer



T. Neil Peters, P.E.
Senior Vice President

