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May 10, 2021

Andrew Miller, Chief Remediation Division, Oil Control Program Maryland Department of the Environment 1800 Washington Blvd. Baltimore, MD 2130

Dear Mr. Miller:

The Town of Chestertown appreciates the opportunity to comment to the Maryland Department of Environment (MDE) on the Shore Regional Health Chester River Hospital's (Hospital) March 18, 2021, Request to Discontinue Pumping and begin Post-Remedial Monitoring Program (Request to Discontinue). According to the Hospital's consultant Gannet Fleming, this request is predominantly based on six months (2 Quarters) of groundwater sampling data and analysis presented in the consultant's two Quarterly Monitoring Reports (Reports).

The Request to Discontinue comes against the backdrop of an eventful and difficult previous year. Not only have business and interaction as usual been severely hampered for everyone, but the Hospital's previous plan to discontinue pump-and-treat operations was upended unexpected and late-reported interruption of those operations. This precluded the Hospital from proceeding and resulted in MDE's assessing a fine. Subsequently, the Hospital replaced its previous consultant on the project in the Fall of 2020 with Gannet Fleming.

MDE required additional sampling for at least two consecutive quarters in determining the effectiveness of natural attenuation.¹ Having reviewed two consecutive quarterly monitoring reports prepared by Garret Fleming, the Town is somewhat uneasy with the consultant's analyses and conclusions and ask that MDE consider these concerns in their evaluation². In addition, other unresolved issues remain on the table, which we also describe briefly. From the Town's standpoint, the oil spill situation has not yet reached the juncture where it is appropriate to transition to a post-remedial suite of activities. Accordingly, the Town requests that its concerns and suggestions are addressed prior to the approval of Post-Remedial Monitoring. The Town asks

 $^{^{1}}$ MDE's September 9, 2020 letter to the Hospital called for "a minimum of two quarters of natural attention parament sampling and associated reporting."

² MDE's November 10, 2020 letter to Chestertown stated that "MDE also required additional sampling for natural attenuation parameters to be collected for at least two consecutive quarters."

that MDE hold off from making a decision on the Hospital's request to shut down the system and to provide an opportunity to discuss Gannet Fleming' data and analysis.

What remains of central concern is safeguarding the integrity of the Town's drinking water resources. The offline pump-and-treat system can be made operational again (although, this step itself, might well entail delay and contention), but we all can agree that it is harder to put that genie back into the bottle than to make a reasoned decision about pulling the plug in the first place.

Listed below are the Town's questions and observations regarding Gannet Fleming's two Quarterly Reports, followed by its observations on additional points that need resolution prior to discontinuing the pump-and-treat system.

Questions and Observations on Executive Summary:

- It would be extremely helpful to have a section devoted to the sentinel wells in the Executive Summary to include data and potential trends associated with MW-18, MW-23, MW-25, MW-28, MW-29, MW-S1, MW-S2, and MW-S3.
- The Monitoring Summary states that the TPH-DRO plume continues to shrink when compared with previous sampling events. Such a statement warrants a detailed analysis and references to the sampling events reviewed in making this determination.
- Reports done by the previous contractor included detailed analyses regarding wells with detection levels of TPH DRO and constituents of concern. The Town recommends that the Executive Summary includes this type of an analysis.
- The presence of a petroleum sheen in recovery wells RW-2D and MW-22 were observed during the monthly gauging event. Are petroleum sheens being observed in other recovery wells? According to the Fourth Quarter 2020 Report, when petroleum sheens are observed, an oil-water interface probe is used to measure the depth of groundwater and the depth of thickness of LPH. Will this always be the case? Will the monthly gauging events also include observations of petroleum related odors?
- Is the Mann-Kendall Test Method analysis being conducted with samples using EPA Method 8015 and not the Silica Gel Cleanup (SGC) preparatory Method 3630?
- The SGC data and analysis are discussed though out the Executive Summary. Can this analysis be pulled together and contained in Section 5.3 TPH-DRO in the SGC Analysis Section? Having SGC analysis referenced in multiple sections, such as the Groundwater Sampling Analysis, and the Analytical Results in Sections 4.2, and 5.2 respectively, creates confusion with regards to data and cleanup goals.
- According to the Executive Summary, sampling and analysis were performed in accordance with MDE requirements except for two analyses using HACH24140-25, which according to Gannet Fleming is no longer available. What type of analysis does this sampling method provide? Was this type of analysis performed in the past?

• Section 5.4 -- Natural Attenuation Monitoring. This section states that the goal is to assess the aquifer's assimilative capacity to naturally degrade the petroleum compound. How can this be accurately achieved if the natural attenuation process is influenced by many aspects of the subsurface environment as discussed in this section?

Questions and Observations on Data Tables:

- It is difficult to identify the data tables being analyzed. The Town recommends a cover page for each of Tables 1-8. One table (EPA Method 8260) seems to have monitoring well data pages out of numerical order. As a result, the Town was unable to find and review the table associated with acetone for MW-S2 in both Reports. Is acetone still being detected in MW-S2?
- We suggest that the data tables also include a table for sentinel well data.

The Town requests that MDE consider the Town's concerns listed below as part of that evaluation.

- <u>Settlement Agreement/Consent Order (SACO) Criteria</u>. The SACO states clearly that a prerequisite for requesting a shut-down is that TPH-DRO at all wells must be below 1.0 ppm. As of January 2021, there are still 8 wells that do not meet these criteria.
- <u>Attenuation Data Needed</u>. The ground water indicators being used to assume natural attenuation require baseline data. Assumptions are made that dissolved hydrocarbons in groundwater will continue to biodegrade before they reach the sentinel wells.
- <u>Limitations and Clarity on the use of the silica gel cleanup (SGC) method (EPA Method 3630)</u> for the TPH-DRO analysis in measurement of petroleum hydrocarbon with EPA Method 8015. The Town is apprehensive that this innovative approach with no apparent track record in Maryland may not account for the Chestertown's geological characteristics and settings,

Where drinking water is at stake, and the migration status of metabolites³ cannot be predicted with confidence, any thought of using SGC for demonstrating compliance with applicable standards should be foreclosed in Chestertown.

• <u>Site Investigation as Prerequisite to Shutdown</u>. In 1999, it was thought that the pump-and-treat system had removed all it could and that substantially diminishing returns had set in. After installing new wells, however, the system again achieved the removal of

In its Request to Discontinue Pumping, the Hospital mentions its "expectation" that "the??? dissolved hydrocarbons in groundwater will continue to biodegrade before they reach the sentinel wells." Without more, this is an insufficient basis on which to stake the integrity of the Town's drinking water supply.

approximately 10,000 gallons. A thorough site investigation, including soil borings, should be done before shutdown of the remediation system.

Spelling Out Shutdown Criteria. All criteria for approval and compliance must be
described in detail well in advance of any shut-down. This is vital not only for purposes
of clarity and transparency, but in view of the past minimal compliance with the SACO,
for regaining public confidence in the wake of the frequent, well-documented lapses by
previous consultants to the Hospital.

Thank you for the opportunity to provide the Town's comments. The Town would appreciate a meeting to discuss 'next steps' with MDE and Hospital. Such a meeting should include the points raised in this letter as well as a post-remedial contingency discussion, regarding remedial or emergency recovery actions if fuel or fuel related contaminants suddenly were detected in monitoring wells below Brown Street or, worse, in any of the sentinel wells. Please let us know your thoughts and availability for such a meeting.

Please also feel free to contact the Town if you have any questions and or concerns.

Singerely

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Mayor

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and Easter

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