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## Water Sampling Results - 351 Dubois Road

To Cairn Krafft <cairnkrafft@comcast.net> Copy James Carroll -MDE- <james.carroll@maryland.gov>

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Dear Ms. Krafft,

On January 25, 2018, at the request of Annapolis Friends Meeting ("AFM"), the Land Restoration Program ("LRP") of the Maryland Department of the Environment collected well water samples from two locations at AFM's facility at 351 Dubois Road, in Annapolis, Maryland. The purpose of the sampling was to see if the well water supplying the AFM facility shows signs of potential metal and/or volatile organic compound ("VOC") contamination from the nearby Allan E. Stastny Landfill property. A portion of the samples were sent to LRP's in-house laboratory for volatile organic compound ("VOC") analysis and another portion was sent to the Maryland Department of Health - Laboratories Administration for metals analysis. Copies of the sampling results reports are attached.

One water sample (I.D. No. 012518-FMH-M01) was collected from an outdoor water spigot located on the northeast side of AFM's facility; the water from this spigot was drawn directly from the on-site water supply well AA-95-1535 (see attached well completion report) and not treated in any way. The second sample (I.D. No. 012518-FMH-M02) was collected from the cold water tap on a utility sink located in the facility's kitchen area. The water emerging from this tap had already been filtered and neutralized by an in-house treatment system; however, the LRP felt that it was worth analyzing because the tap water represents the water being used by people inside the facility.

No VOCs were detected in either sample. Low detections of sodium (1.67 ppm), iron (5.07 ppm), and manganese (0.08 ppm) were detected in the raw water entering the facility. Sodium (34.31 ppm) and iron (0.16 ppm) were also detected in the treated water sampled from the utility sink tap.

With regard to sodium, USEPA's drinking water advisory document (EPA 822-R-03-006) cites the consumption of drinking water with a sodium concentration of 20 ppm or less as being safe for a person on restricted salt diet (500 mg/day) and water having a sodium concentration between 30 and 60 ppm as not having an salty taste that would prohibit consumption. On the other hand, iron and manganese concentrations found in the untreated well water exceeded their USEPA secondary maximum contaminant levels of 0.3 ppm (iron) and 0.05 ppm (manganese), which means, while not unsafe, they have the potential to affect the aesthetic (e.g., taste, odor, color) quality of the water. I assume that the presence of these metals is the reason that the facility's neutralizing system was installed as evidenced by the lower iron and manganese concentrations found in the utility sink (post-treatment) water sample.

Generally speaking, test results for groundwater contaminated by disposal areas like the Allan E. Stastny Landfill will often show a variety of VOC detections and highly-elevated concentrations of selected metals. Neither were found in the samples the LRP collected from the AFM facility and, for this reason, we see no indication from the data that the Allan E. Stastny Landfill property is adversely impacting the well water currently serving the AFM facility.

We hope that this information proves useful to the AFM's future water source decision-making process. Do not hesitate to contact James Carroll (410-537-3437) or me if you have any further questions or concerns.

Sincerely,

Brian Dietz, Chief  
State Assessment and Remediation Division  
Land Restoration Program  
(410) 537-3488

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- AFM metals data.pdf (411 KB)
- AFM vocs data.pdf (46 KB)

- AFM well log.pdf (493 KB)