

MEMO

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Date:
July 30, 2021

Arcadis Project No.:
30080642

Subject:
Livonia Transmission Plant
36200 Plymouth Road, Livonia, Wayne County, Michigan
EGLE Site ID No. 82002970
Offsite Interim Preemptive Mitigation Installation Quarterly Update

On behalf of Ford Motor Company (Ford), Arcadis of Michigan, LLC (Arcadis) has prepared this quarterly update to the interim preemptive mitigation system installation for the Livonia Transmission Plant (LTP) site (the site) as requested by Michigan Department of Environment, Great Lakes, and Energy (EGLE) via email on May 26, 2019 and on July 26, 2019. As discussed during the meeting with EGLE on October 22, 2020 and documented in the November 30, 2020 letter from EGLE, Ford is providing the mitigation updates on a quarterly basis, with this quarterly update covering the quarter of April through June 2021.

As of June 30, 2021, the following progress has been made at 33 residential properties in the Alden Village subdivision:

- 33 of 33 IPM systems are designed. 31 of 33 are installed and operating. The status of the remaining 2 are described below:
 - 1 of 33 IPM systems are currently pending installation.
 - 1 of 33 current property owners is unwilling to allow the IPM system to be installed at their property.
- 10 of 10 sheds where Retro-Coat™ has been proposed have had it applied to the floor. One shed was removed from the proposed list during the second quarter of 2021 as described below:
 - Arcadis requested an alternative monitoring plan for the remaining shed at 12100 Boston Post which was approved and documented in a letter from EGLE dated April 14, 2021.
- 10 of 13 garages have had Retro-Coat™ applied to the floor. The status of the remaining 3 are discussed below:
 - 1 garage is currently pending.
 - 2 garage owners have not approved Retro-Coat™ application.

- Arcadis requested an alternative monitoring plan for 3 garages located at 34424 Capitol, 34450 Capitol, and 12091 Brewster which was approved and documented in a letter from EGLE dated April 14, 2021

Arcadis continues to work diligently maintain the interim preemptive mitigation systems. Details are provided below for all 33 locations.

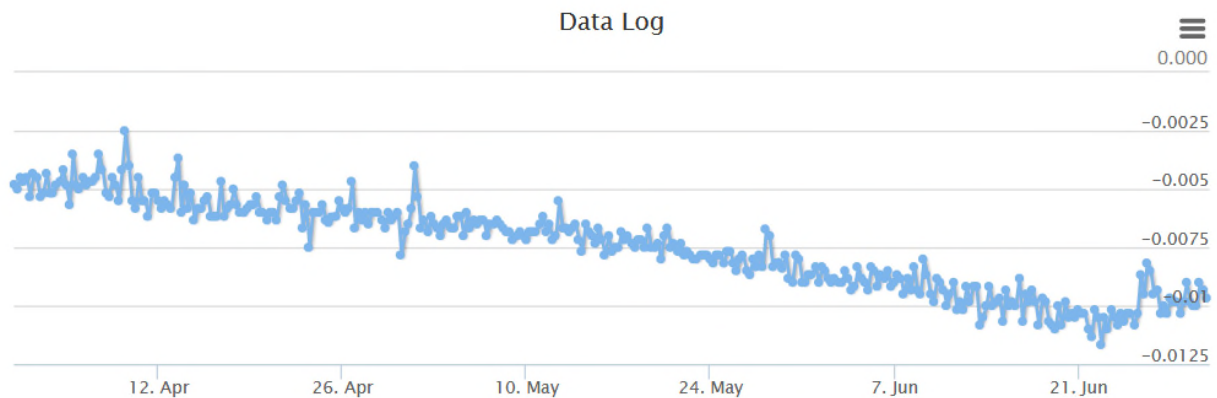
Ford has established an Electrical Reimbursement Program to reimburse residents for the electrical costs associated with the operation of interim preemptive mitigation systems. The Electrical Reimbursement Program is administrated by Arcadis on behalf of Ford. Arcadis has received the necessary paperwork back from 28 of 31 residents and has processed the initial payments along with the Q2 2021 payment. Arcadis is working with the remaining residents to assist them with the paperwork needed to process as required by the federal tax laws. Once Arcadis receives the W-9, an initial payment to the resident will be issued. Electrical reimbursements will continue to be processed and distributed on a quarterly basis.

Interim Preemptive Mitigation Systems Currently Operating

- **34380 Beacon** – The system is currently in routine operation and maintenance.
- **34424 Beacon** – The system is currently in routine operation and maintenance.
- **34450 Beacon** – The system is currently in routine operation and maintenance.

On June 22, 2021, following the rain event that produced more than 1 inch of rain Arcadis was unable to inspect the crawlspace at this property due to homeowner availability. Arcadis will schedule a date to inspect the property based on homeowner availability.

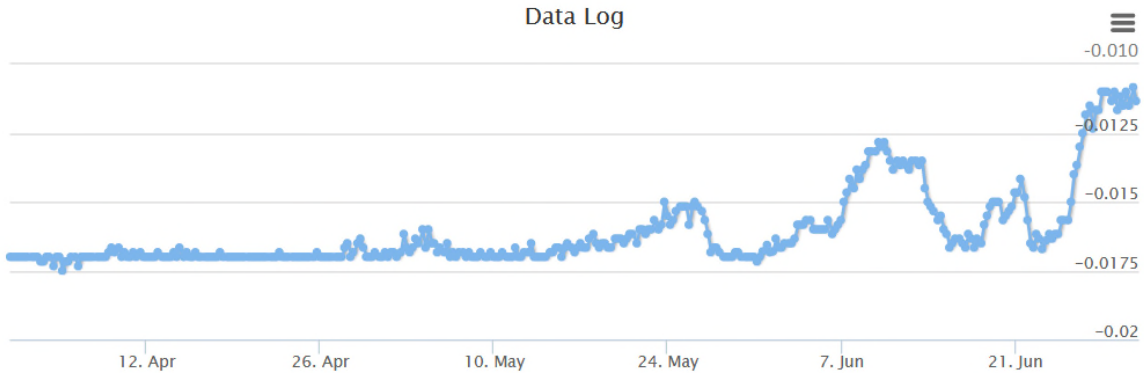
- **34550 Beacon** – The system is currently in routine operation and maintenance.
- **34591 Beacon** – The system is currently in routine operation and maintenance. An update of the data logged by the vacuum transmitter connected to SSMP-1 is presented below demonstrating that the system continues to operate effectively.



On June 22, 2021, Arcadis inspected the crawlspace at this property after a rain event produced more than 1 inch of rain in a 24-hour period. Arcadis removed approximately fifteen gallons of water on the barrier. Vacuum influence measurements were collected after the rain event and the measurements exceeded the performance metrics established by EGLE of -0.02 in wc except for SSMP-1.

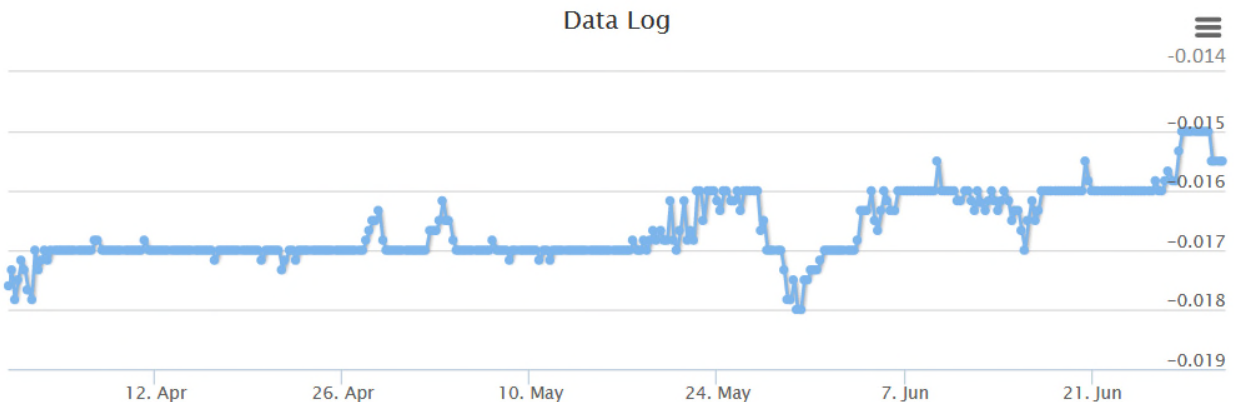
- **34600 Beacon** – The system is currently in routine operation and maintenance.
- **34644 Beacon** – The system is currently in routine operation and maintenance.

- **34682 Beacon** – The sub-membrane depressurization (SMD) system is currently in routine operation and maintenance. An update of the data logged by the continuously monitored vacuum transmitter connected to sub-membrane monitoring point MP-5 is presented below indicating that the SMD system continues to operate effectively. The transmitter data provided within previous quarterly updates has also shown that vacuum in the area being monitored by the transmitter has been maintained.



On April 14, 2021, EGLE approved a property specific monitoring program for the slab living area and garage consisting of quarterly groundwater sampling at MW-115S, MW-154S, and MW-155S in accordance with the EGLE approval letter. Quarterly groundwater sampling results for vinyl chloride at MW-115S have not exceeded the historic high of 3.9 µg/L and have not exceeded the groundwater screening level of 1.0 µg/L at MW-154S and MW-155S. Therefore, additional sub-slab sampling was not required.

- **34920 Beacon** – The system is currently in routine operation and maintenance.
- **34940 Beacon** – The system is currently in routine operation and maintenance.
- **34950 Beacon** – The system is currently in routine operation and maintenance.
- **34990 Beacon** – The system is currently in routine operation and maintenance. An update of the data logged by the vacuum transmitter connected to MP-7 is presented below demonstrating that the system continues to operate effectively.



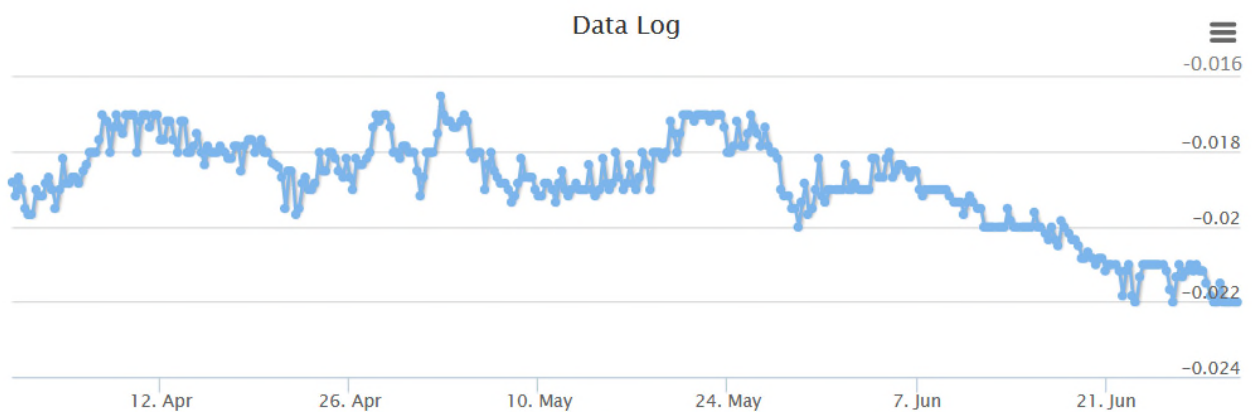
This home was sold in June of 2021. The previous property owner had denied the application of Retro-Coat™ in the detached garage since the floor has an existing epoxy coating and imbedded tubing for

radiant heat. Arcadis is in discussions with EGLE to develop a monitoring program to assess VI potential associated with the slab at this property.

- **12066 Boston Post** – The system is currently in routine operation and maintenance.

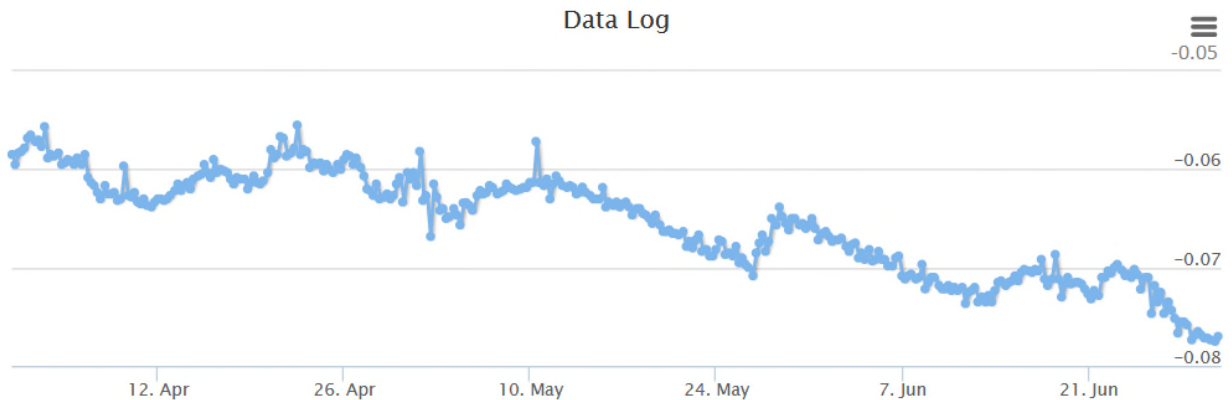
On June 22, 2021, Arcadis inspected the crawlspace at this property after a rain event produced more than 1 inch of rain in a 24-hour period. Arcadis removed approximately two gallons of water, which had flowed in through the crawlspace door, onto the barrier. Vacuum influence measurements were collected after the rain event and exceeded the performance metric established by EGLE of -0.02 in wc.

- **12067 Boston Post** – The system is currently in routine operation and maintenance. An update of the data logged by the vacuum transmitter connected to MP-1 is presented below demonstrating that the system continues to operate effectively.



On June 22, 2021, Arcadis inspected the crawlspace at this property after a rain event produced more than 1 inch of rain in a 24-hour period. Arcadis removed approximately four gallons of water, which had flowed in through the crawlspace door, onto the barrier. Additional water remaining on the barrier was scheduled to be removed in July 2021. Vacuum influence measurements were collected after the rain event and exceeded the performance metric established by EGLE of -0.02 in wc except MP-1.

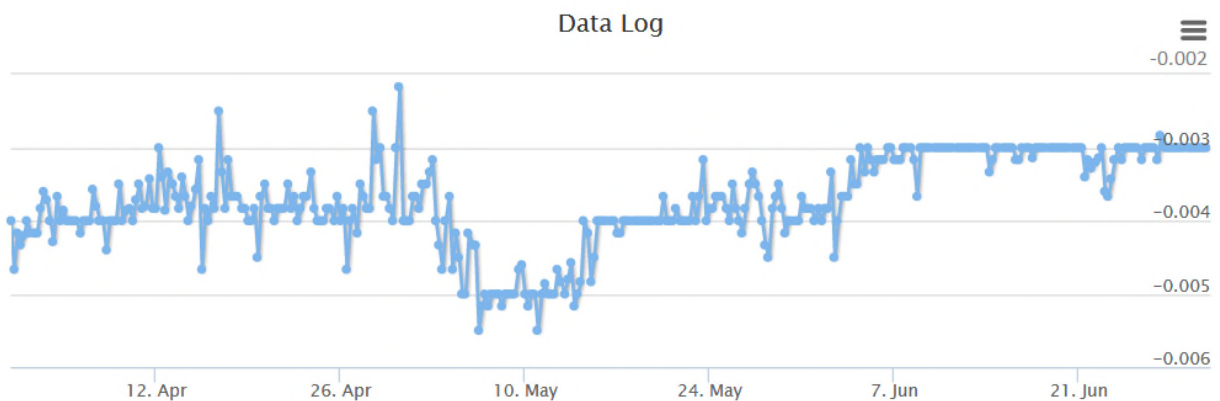
- **12070 Boston Post** – The system is currently in routine operation and maintenance.
- **12089 Boston Post** – The system is currently in routine operation and maintenance.
- **12100 Boston Post** – The SMD system is currently in routine operation and maintenance. An update of the data logged by the vacuum transmitter connected to sub-slab monitoring point SSMP-4 is presented below demonstrating system continues to operate effectively.



On April 14, 2021, EGLE approved a property specific monitoring program for the slab living area, attached garage, and shed consisting of quarterly groundwater sampling at MW-79SR, MW-115S, and MW-155S in accordance with the EGLE approval letter. Quarterly groundwater sampling results for vinyl chloride at MW-115S have not exceeded the historic high of 3.9 µg/L and have not exceeded the groundwater screening level of 1.0 µg/L at MW-79SR and MW-155S. Therefore, additional sub-slab sampling was not required. Additionally, the usage and condition of the shed will be evaluated during the annual O&M event scheduled for 1st quarter of 2022.

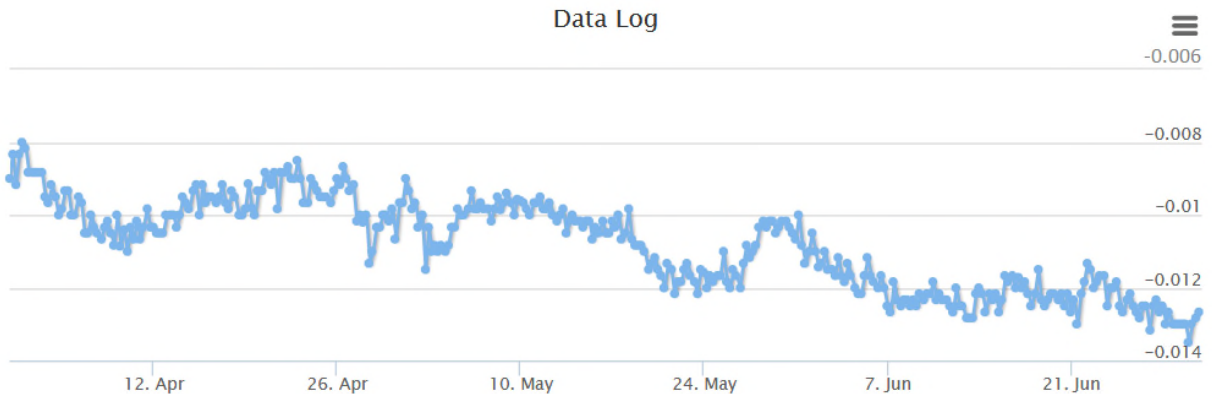
- 12131 Boston Post** –The system is currently in routine operation and maintenance. On June 16, 2021, Arcadis responded to a low vacuum switch alarm notification. The mitigation fan was operating and maintaining vacuum influence as demonstrated by the vacuum transmitter data presented below. It was determined that the tubing connection was loose resulting in the alarm. Arcadis repaired and resecured the tubing, which resulted in the alarm returning to normal. Arcadis completed a system inspection during this visit and verified that the mitigation system continues to operate normally.

An update of the data logged by the vacuum transmitter connected to MP-4 is presented below demonstrating that the system continues to operate effectively. The area being monitored by the transmitter is located beneath a small breezeway between the attached garage and the home. The transmitter data provided within previous quarterly updates has also shown that vacuum in the area being monitored by the transmitter has been maintained.

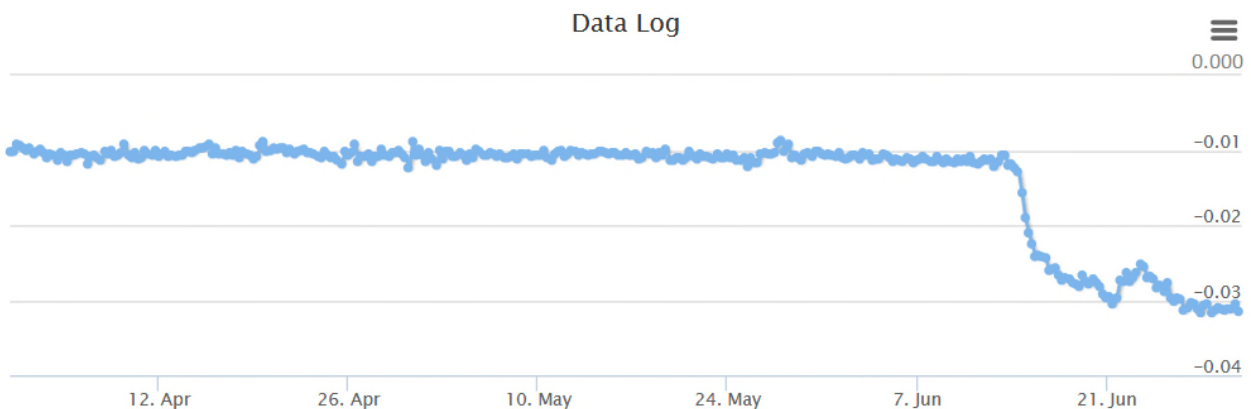


- 12141 Boston Post** – The system is currently in routine operation and maintenance. An update of the data logged by the vacuum transmitter connected to MP-4 is presented below demonstrating that the system continues to operate effectively. The transmitter data provided within previous quarterly

updates has also shown that vacuum in the area being monitored by the transmitter has been maintained.



- 12017 Brewster** – The system is currently in routine operation and maintenance. The homeowners were not available during the first quarter of 2021 so the first routine annual OM&M event was completed on April 13, 2021, at the request of the homeowners. Arcadis collected the following vacuum influence readings; MP-1: -0.224 in wc., MP-2: -0.342 in wc., MP-3: -0.151 in wc., MP-4: -0.175 in wc., SSMP-1: -0.027 in wc., SSMP-2: -0.040 in wc., SSMP-3: -0.017 in wc. To improve the performance at SSMP-3, a ball valve was adjusted. Following valve adjustments, Arcadis collected the following vacuum influence readings; MP-1: -0.346 in wc., MP-2: -0.555 in wc., MP-3: -0.052 in wc., MP-4: -0.082 in wc., SSMP-1: -0.037 in wc., SSMP-2: -0.065 in wc., SSMP-3: -0.027 in wc. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc.
- 12036 Brewster** – The system is currently in routine operation and maintenance. An update of the data logged by the vacuum transmitter connected to SSMP-2 is presented below demonstrating that the system continues to operate effectively.



- 12075 Brewster** – The system is currently in routine operation and maintenance. On June 22, 2021, Arcadis inspected the crawlspace at this property after a rain event produced more than 1 inch of rain in a 24-hour period. Arcadis removed approximately eight gallons of water on the barrier. Vacuum influence measurements were collected after the rain event and the measurements exceeded the performance metrics established by EGLE of -0.02 in wc.

- **12088 Brewster** – The system is currently in routine operation and maintenance.

On June 22, 2021, Arcadis inspected the crawlspace at this property after a rain event produced more than 1 inch of rain in a 24-hour period. Arcadis did not observe any water on the barrier. Vacuum influence measurements were collected after the rain event and exceeded the performance metric established by EGLE of -0.02 in wc.

- **12091 Brewster** – The SMD system is currently in routine operation and maintenance.

On April 14, 2021, EGLE approved a property specific monitoring program for the detached garage consisting of quarterly groundwater sampling at MW-123S and MW-151S in accordance with the EGLE approval letter. Quarterly groundwater sampling results for vinyl chloride at MW-123S and MW-151S have not exceeded the historic high of 4.6 µg/L. Therefore, additional sub-slab sampling was not required. However, one additional sub-slab sample will be collected at the existing detached garage sample port, SSMP-01, during the third quarter of 2021. Additionally, garage usage will be monitored during this sampling event.

- **12101 Brewster** – The system is currently in routine operation and maintenance.

On June 22, 2021, Arcadis inspected the crawlspace at this property after a rain event produced more than 1 inch of rain in a 24-hour period. Arcadis removed approximately ten gallons of water on the barrier. Vacuum influence measurements were collected after the rain event and the measurements exceeded the performance metric established by EGLE of -0.02 in wc.

- **34367 Capitol Avenue**– The system is currently in routine operation and maintenance. This home was sold in June of 2021.
- **34380 Capitol Avenue** – The system is currently in routine operation and maintenance.
- **34401 Capitol Avenue**– The system is currently in routine operation and maintenance.

On June 22, 2021 Arcadis inspected the crawlspace at this property after a rain event produced more than 1 inch of rain in a 24-hour period. Arcadis did not observe any water on the barrier. Vacuum influence measurements were collected after the rain event and exceeded the performance metric established by EGLE of -0.02 in wc.

- **34424 Capitol Avenue** –The SMD system is currently in routine operation and maintenance.

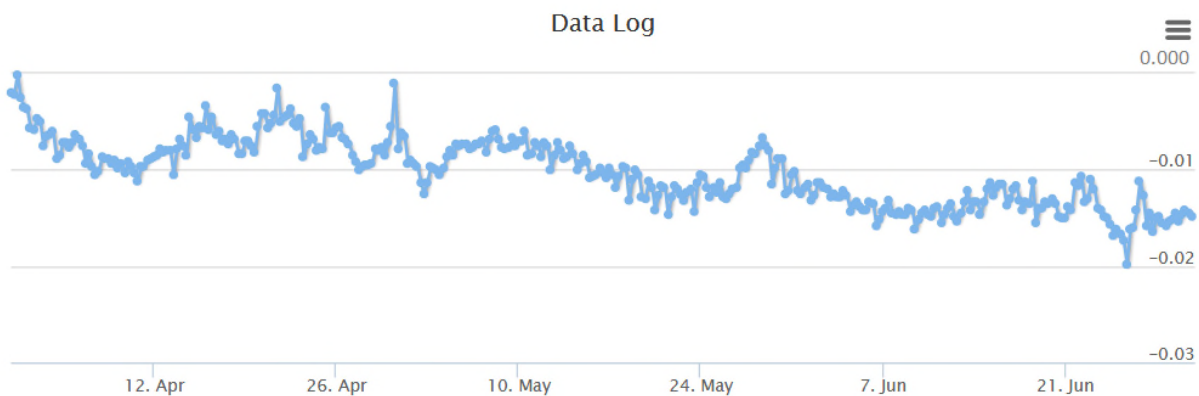
On April 14, 2021, EGLE approved a property specific monitoring program for the slab living area and detached garage consisting of quarterly groundwater sampling at MW-90S, MW-103S, MW-136S, MW-148S, and MW-169S in accordance with the EGLE approval letter. Quarterly groundwater sampling results for vinyl chloride at MW-136S have not exceeded the historic high of 1.4 µg/L; at MW-148S have not exceeded the historic high of 2.3 µg/L; and have not exceeded the groundwater screening level of 1.0 µg/L at MW-90S, MW-103S, and MW-169S. Therefore, additional sub-slab sampling was not required at the existing detached garage sub-slab sample port. However, four quarters of sub-slab sampling will be completed in the slab portion of the home beginning in the third quarter of 2021. The existing sub-slab suction points leading to this area will be closed a minimum of 30 days prior to sampling and will remain closed unless any sub-slab sample exceeds the residential sub-slab VIAC of 54 µg/m³ for vinyl chloride.

- **34450 Capitol Avenue** – The SMD system is currently in routine operation and maintenance. On March 12, 2021, Arcadis collected post-mitigation IA and SS samples. On April 13, 2021, Arcadis

provided the analytical data package to all required parties consistent with the access agreement after receipt and validation.

On April 14, 2021, EGLE approved a property specific monitoring program for the slab living area and attached garage consisting of quarterly groundwater sampling at MW-108S, MW-137S, MW-168S, and MW-169S in accordance with the EGLE approval letter. Quarterly groundwater sampling results for vinyl chloride at MW-137S have not exceeded the historic high of 1.1 µg/L and have not exceeded the groundwater screening level of 1.0 µg/L at MW-108S, MW-168S, and MW-169S. Therefore, additional sub-slab sampling was not required.

- **34480 Capitol Avenue**– The system is currently in routine operation and maintenance. On April 15, 2021, Arcadis completed a vacuum transmitter check to resolve the intermittent positive spikes observed on the data log. Arcadis recalibrated the vacuum transmitter and collected the following vacuum influence readings: MP-1: -0.016 in wc., MP-2: -0.011 in wc., MP-3: -0.007 in wc., SSMP-2: -0.003 in wc. An update of the data logged by the vacuum transmitter connected to SSMP-2 is presented below demonstrating that the system continues to operate effectively.



Interim Preemptive Mitigation Systems – Extension Requested

- **12124 Boston Post** – The property owner has declined an air purifier unit in the past and continues to decline. On October 6, 2020, the homeowner told Arcadis he really did not want a mitigation system installed in his home and he stated that if there was anything that can be done to prevent the installation, he would be very happy. Three rounds of pre-mitigation IA and SS data have been completed. No detections of vinyl chloride were reported in any of the samples. Additionally, all groundwater samples from the closest upgradient monitoring wells, MW-118S (7 rounds) and MW-79SR (8 rounds) have been below the groundwater screening level of 1.0 µg/L.
- **12121 Boston Post** –The property owner was presented with an air purifier on March 21, 2019, as part of the initial preemptive mitigation approach. The air purifier remained on the front porch until March 24, 2019, when an Arcadis employee retrieved the unit. The air purifier was retrieved from the location, so damage did not occur to the unit from being outside and exposed to the weather. The draft design for the preemptive mitigation system was provided on March 29, 2019. On April 16, 2019, the property owners sent an email indicating that Ford nor Arcadis had access to the property any longer. A complaint was filed on July 10, 2019, in the Michigan state court to gain access to this home to complete the installation of the interim preemptive mitigation system.

The suit seeking access to the property at 12121 Boston Post was removed by those property owners to federal court. Ford moved to remand that lawsuit to state court, and it was remanded on January 7,

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2020. Ford has continued to pursue access through state court proceedings and moved for summary disposition on the access issue. On July 30, 2021, the court granted Ford's motion for summary disposition and entered an order granting Ford access to the property for "investigative, testing, mitigation and remedial activities adhering to the Consent Decree as more fully developed in EGLE-approved-as-amended plans." Ford and its counsel will discuss with EGLE the next steps to be taken at this property following entry of the court's order.