

# MEMO

To:  
Jeanne Schlaufman  
Environmental Quality Specialist  
EGLE Warren District Office  
27700 Donald Court  
Warren, Michigan 48092-2793  
Schlaufmanj1@michigan.gov

Copies:  
Mr. Paul Owens, EGLE  
Ms. Beth Vens, EGLE  
Mr. Todd Walton, Ford

From:  
Kris Hinskey

Arcadis of Michigan, LLC  
28550 Cabot Drive  
Suite 500  
Novi  
Michigan 48377  
Tel 248 994 2240  
Fax 248 994 2241

Date:  
October 29, 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

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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 July through September 2021.

As of September 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:
  - Arcadis is in discussion with EGLE regarding an alternative monitoring plan for 12124 Boston Post and 12121 Boston Post in lieu of mitigation.
- 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 10 garages have had Retro-Coat™ applied to the floor.
  - Arcadis requested an alternative monitoring plan for the 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.

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 continues to work with the residents, new and existing, to assist them with the paperwork (W-9) needed to process as required by the federal tax laws. Electrical reimbursements will continue to be processed and distributed on a quarterly basis.

On October 5, 2021, a meeting was held with EGLE to review individual CSM's for 11 of the off-site properties. Arcadis is working on providing the additional information which was requested at this meeting.

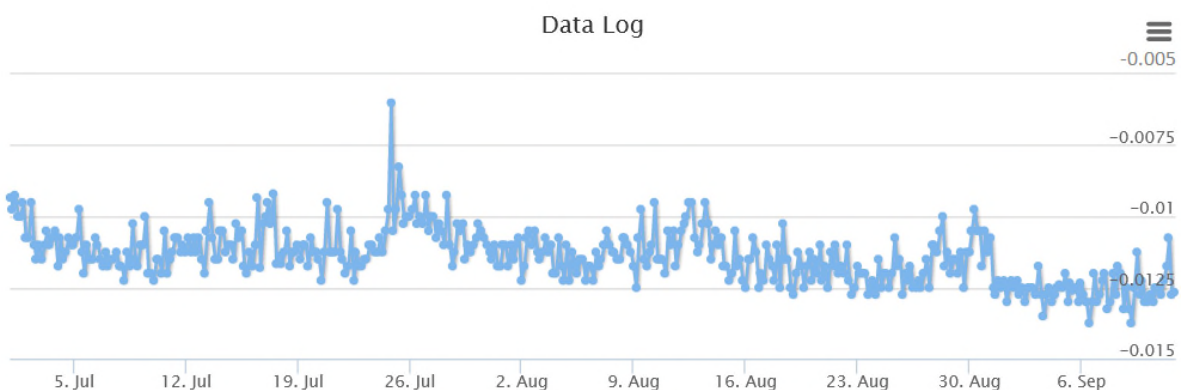
Arcadis continues to work diligently maintain the interim preemptive mitigation systems. Details are provided below for all 33 locations.

### 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.

Arcadis inspected the crawlspace at this property after each rain event that produced more than 1 inch of rain in a 24-hour period (July 6, 2021; August 16, 2021; and September 27, 2021). On July 6, 2021, Arcadis inspected the barrier and did not observe any water. On July 26, 2021, Arcadis was unable to inspect the crawlspace at this property due to homeowner availability. On August 16, 2021, Arcadis inspected the barrier and did not observe any water. On September 27, 2021, Arcadis identified water on the barrier and approximately six gallons of water was removed from the crawlspace barrier. Vacuum influence measurements were collected during each rain inspection and exceeded the performance metric established by EGLE of -0.02 iwc.

- **34550 Beacon** – The system is currently in routine operation and maintenance.
- **34591 Beacon** – The system is currently in routine operation and maintenance. This home was sold in September of 2021 and the new owner granted access on October 7, 2021. 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.

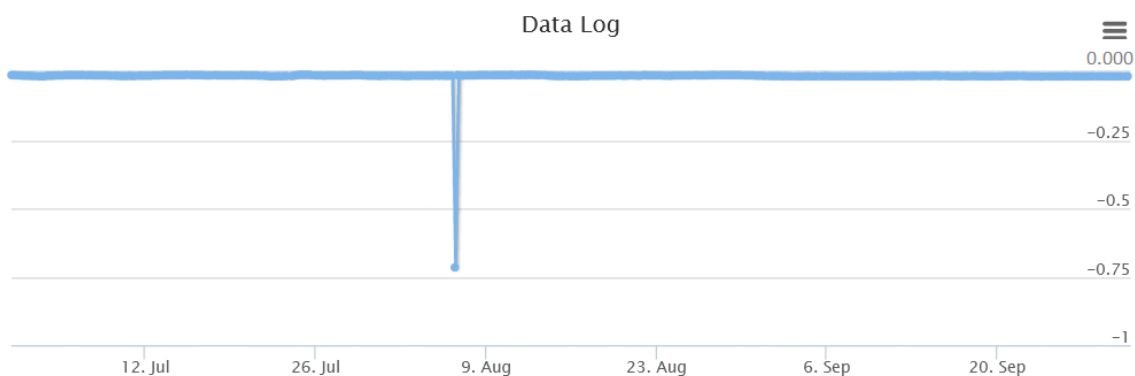


On September 11, 2021, Arcadis received notification that power to the mitigation system was turned off. Power has not yet been restored to the mitigation system to date. Arcadis reached out to the new homeowner multiple times in an attempt to restore power to the mitigation system. Arcadis spoke with

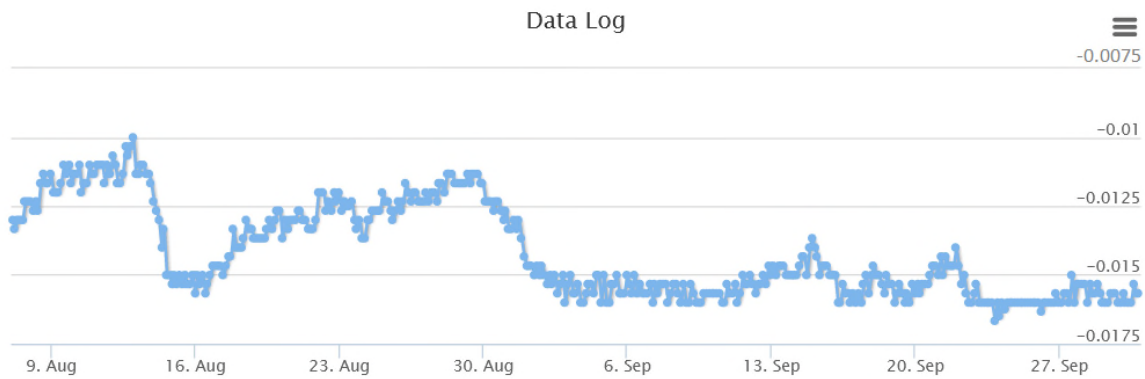
the new homeowners on Oct 6<sup>th</sup> and was informed that there are ongoing renovations occurring and power to some circuits in the home have been turned off. Power will be restored to the mitigation system in the near future as renovation work is completed. The data logged by the vacuum transmitter connected to SSMP-1 present above demonstrates the applied vacuum prior to the date when the mitigation system was turned off.

Arcadis inspected the crawlspace at this property after each rain event that produced more than 1 inch of rain in a 24-hour period (July 6, 2021; July 26, 2021; August 16, 2021; and September 27, 2021). On July 6, 2021, Arcadis identified water on the barrier and approximately eight gallons of water was removed from the crawlspace barrier. On July 26, 2021, Arcadis inspected the barrier and did not observe any water. On August 16, 2021, Arcadis inspected the barrier and did not observe any water. Vacuum influence measurements were collected after each rain event and exceeded performance metrics established by EGLE of -0.02 iwc except at SSMP-1, where vacuum was maintained at the levels shown in the graph above. On September 27, 2021, Arcadis was unable to inspect the crawlspace as the new owners had not yet provided access.

- **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 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.

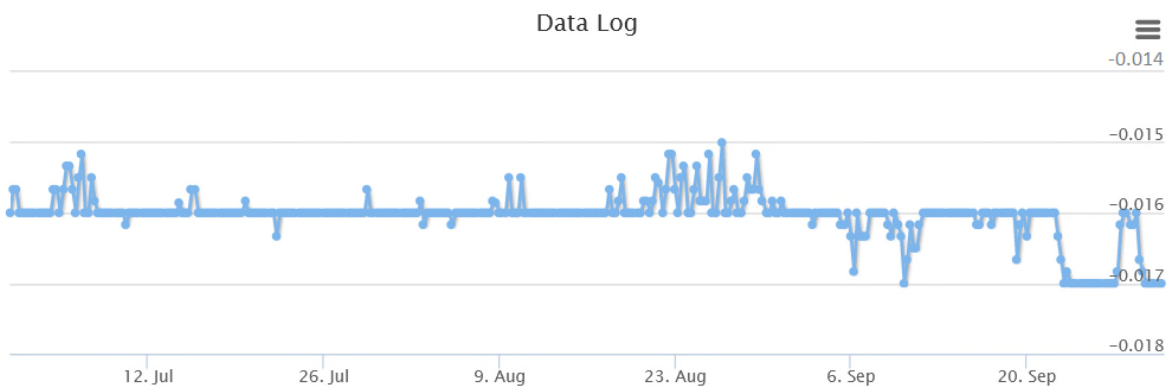


On August 6, 2021, the vacuum transmitter recorded a single large negative value and returned to normal optional range. Presented below is a zoomed in view of the data logged by the vacuum transmitter showing vacuum influence after August 6, 2021, indicating that the SMD system continues to operate effectively.



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.



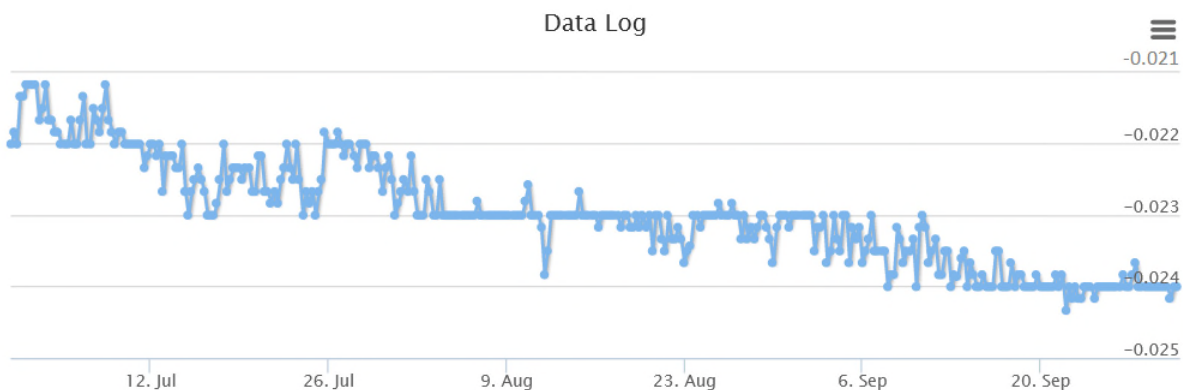
This home was sold in June of 2021 and the new owner provided access to the property on July 27, 2021. The previous property owner had denied the application of Retro-Coat™ in the detached garage since the floor has an existing epoxy coating and imbedded tubing for radiant heat. Arcadis is in discussions 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.

Arcadis inspected the crawlspace at this property after each rain event that produced more than 1 inch of rain in a 24-hour period (July 6, 2021; July 26, 2021; August 16, 2021; and September 27, 2021).

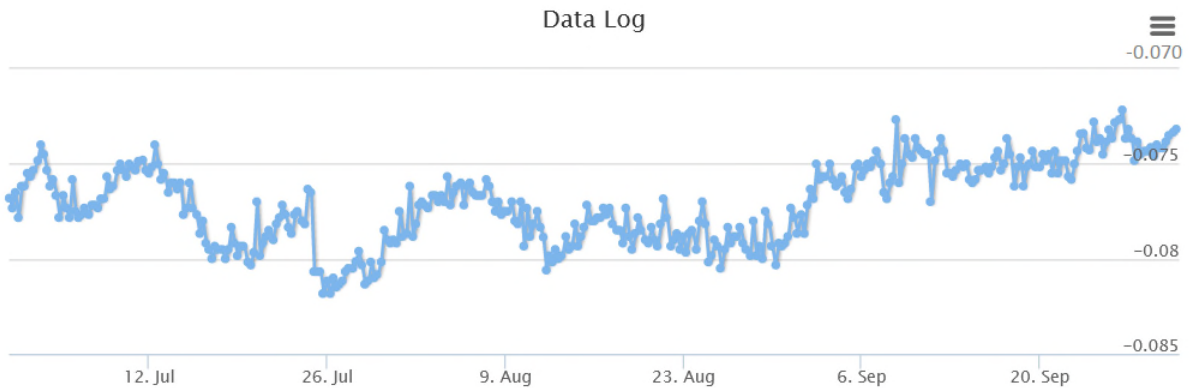
On July 6, 2021, Arcadis identified water on the barrier and approximately two gallons of water was removed from the crawlspace barrier. On July 26, 2021, Arcadis identified water on the barrier and approximately five gallons of water was removed from the crawlspace barrier. On August 16, 2021, Arcadis identified water on the barrier and approximately five gallons of water was removed from the crawlspace barrier. On September 27, 2021, Arcadis identified water on the barrier and approximately ten gallons of water was removed from the crawlspace barrier. Vacuum influence measurements were collected after each rain event and exceeded the performance metric established by EGLE of -0.02 iwc.

- **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.



Arcadis inspected the crawlspace at this property after each rain event that produced more than 1 inch of rain in a 24-hour period (July 6, 2021; July 26, 2021; August 16, 2021; and September 27, 2021). On July 6, 2021, Arcadis identified water on the barrier and approximately 180 gallons of water was removed from the crawlspace barrier. On July 26, 2021, Arcadis identified water on the barrier and approximately 180 gallons of water was removed from the crawlspace barrier. On August 16, 2021, Arcadis identified water on the barrier and approximately one hundred gallons of water was removed from the crawlspace barrier. On September 27, 2021, Arcadis identified water on the barrier and approximately one hundred gallons of water was removed from the crawlspace barrier. Vacuum influence measurements were collected after each rain event and exceeded the performance metric established by EGLE of -0.02 iwc at 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 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.

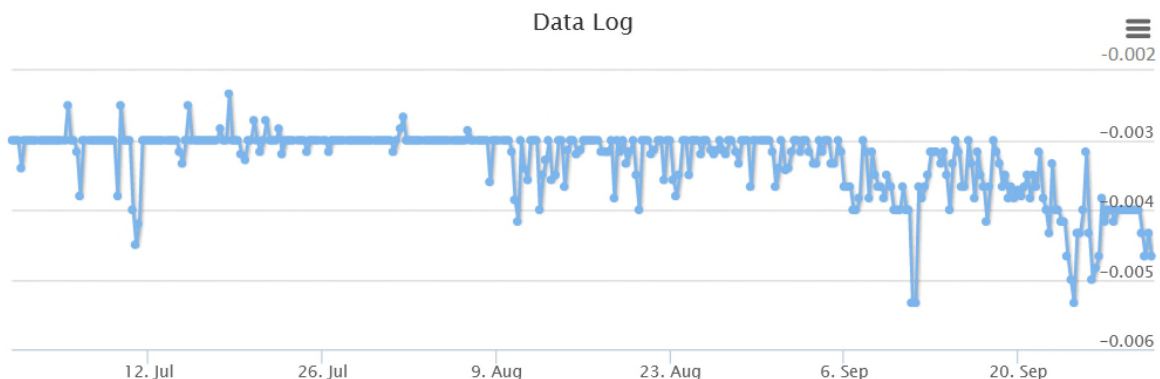


Arcadis responded to a call from the homeowner stating that the mitigation system fan was loud. On September 13, 2021, Arcadis cleaned out the fan reducing the noise.

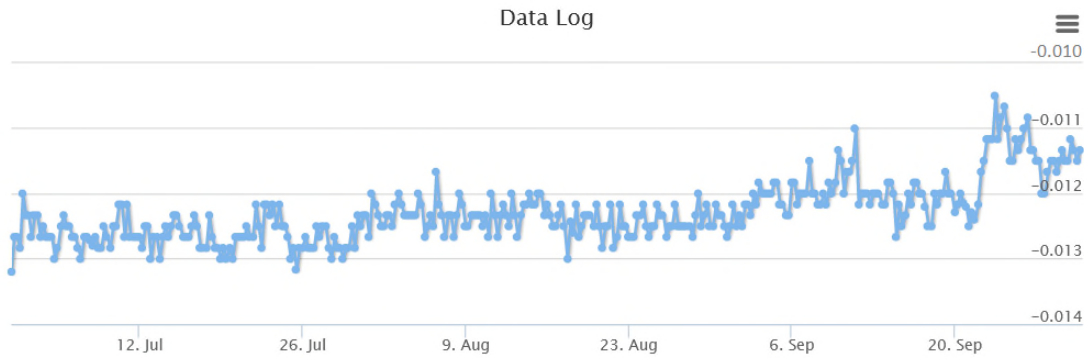
On April 14, 2021, EGLE approved a property specific monitoring program for the slab living area, attached garage, and shed consisting of quarterly groundwater sampling at MW-79SR, MW-115S, and MW-155S in accordance with the EGLE approval letter. Quarterly groundwater sampling results for vinyl chloride 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 1<sup>st</sup> quarter of 2022.

- **12131 Boston Post** –The system is currently in routine operation and maintenance.

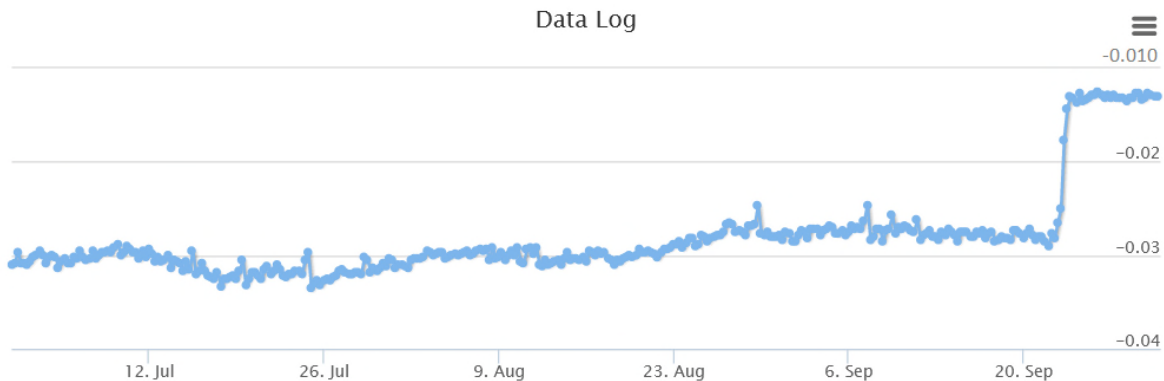
This home was sold in July of 2021 and the new owner has granted access. An update of the data logged by the vacuum transmitter connected to MP-4 is presented below demonstrating that the system continues to operate effectively. The area being monitored by the transmitter is located beneath a small breezeway 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.
- **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 July 19, 2021, Arcadis responded to the request of the homeowner to inspect the crawlspace for water following a rain event where less than 1 inch of rain fell in a 48-hour period. Arcadis identified water on the barrier and approximately ten gallons of water was removed from the crawlspace barrier at the crawlspace entrance. Vacuum influence measurements were collected after the rain event and exceeded performance metrics established by EGLE of -0.02 iwc.

Arcadis inspected the crawlspace at this property after each rain event that produced more than 1 inch of rain in a 24-hour period (July 6, 2021; July 26, 2021; August 16, 2021; and September 27, 2021). On July 6, 2021, Arcadis identified water on the barrier and approximately two gallons of water was removed from the crawlspace barrier. On July 26, 2021, Arcadis identified water on the barrier and approximately five gallons of water was removed from the crawlspace barrier. On August 16, 2021, Arcadis identified water on the barrier and approximately five gallons of water was removed from the crawlspace barrier. On September 27, 2021, Arcadis identified water on the barrier and approximately five gallons of water was removed from the crawlspace barrier. Vacuum influence measurements were collected after each rain event and exceeded the performance metric established by EGLE of -0.02 iwc.

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

Arcadis inspected the crawlspace at this property after each rain event that produced more than 1 inch of rain in a 24-hour period (July 6, 2021; July 26, 2021; August 16, 2021; and September 27, 2021). On July 6, 2021, Arcadis identified water on the barrier and approximately two gallons of water was removed from the crawlspace barrier. On July 26, 2021, Arcadis inspected the barrier and did not observe any water. On August 16, 2021, Arcadis inspected the barrier and did not observe any water. On September 27, 2021, Arcadis inspected the barrier and did not observe any water. Vacuum influence measurements were collected after each rain event and exceeded the performance metric established by EGLE of -0.02 iwc.

- **12091 Brewster** – The 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.

On September 30, 2021, Arcadis completed the sub-slab sampling at the existing detached garage sample port, SSMP-01, per the alternative monitoring plan which was approved and documented in a letter from EGLE dated April 14, 2021. Once the analytical data has been received and validated, it will be distributed to all parties following the access agreement.

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

Arcadis inspected the crawlspace at this property after each rain event that produced more than 1 inch of rain in a 24-hour period (July 6, 2021; July 26, 2021; August 16, 2021; and September 27, 2021). On July 6, 2021, Arcadis inspected the barrier and did not observe any water. On July 26, 2021, Arcadis identified water on the barrier and approximately two gallons of water was removed from the crawlspace barrier. On August 16, 2021, Arcadis identified water on the barrier and approximately ten gallons of water was removed from the crawlspace barrier. On September 27, 2021, Arcadis inspected the barrier and did not observe any water. Vacuum influence measurements were collected after each rain event and exceeded the performance metric established by EGLE of -0.02 iwc.

- **34367 Capitol Avenue** – The system is currently in routine operation and maintenance.
- **34380 Capitol Avenue** – The system is currently in routine operation and maintenance.
- **34401 Capitol Avenue** – The system is currently in routine operation and maintenance.

Arcadis inspected the crawlspace at this property after each rain event that produced more than 1 inch of rain in a 24-hour period (July 6, 2021; August 16, 2021; and September 27, 2021). On July 6, 2021, Arcadis inspected the barrier and did not observe any water. On July 26, 2021, Arcadis was unable to inspect the crawlspace at this property due to homeowner availability. On August 16, 2021, Arcadis inspected the barrier and did not observe any water. On September 27, 2021, Arcadis inspected the barrier and did not observe any water. Vacuum influence measurements were collected during each rain inspection and exceeded the performance metric established by EGLE of -0.02 iwc.

- **34424 Capitol Avenue** – The 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, the first was collected 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/m<sup>3</sup> for vinyl chloride.

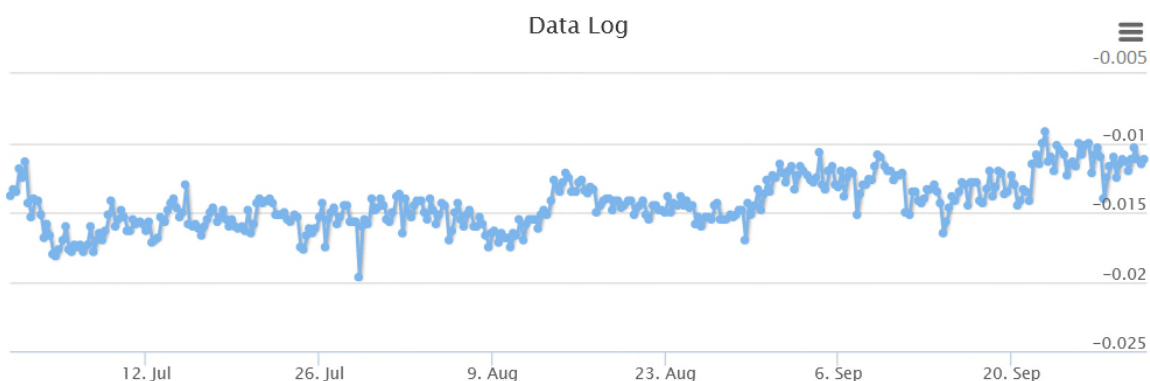
On August 26, 2021, Arcadis installed a new sub-slab monitoring point (SSMP-03) in the northwest corner of the concrete slab portion of the home. The SSMP was placed five feet away from the exterior edge of the concrete slab. Following the installation of the new SSMP, Arcadis turned off the two sub-slab suction points and will stay off for thirty-five days prior to the SSMP sampling event.

On September 30, 2021, Arcadis completed the SSMP sampling at the sub-slab sample port, SSMP-03 per the alternative monitoring plan which was approved and documented in a letter from EGLE dated April 14, 2021. Once the analytical data has been received and validated, it will be distributed with all parties following the access agreement.

- **34450 Capitol Avenue** – The 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 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. 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. On October 5, 2021, a meeting was held with EGLE to review the CSM data which demonstrates that mitigation is not required at this location and to propose an alternative monitoring plan for 12124 Boston Post. Arcadis is working on providing the additional information which was requested at this meeting.
- **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 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 neither 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, 2020. Ford has been granted summary disposition on access issues by a Michigan state court, but the access matter has been stayed through the end of 2021 to allow the homeowners opportunity to secure new counsel after the counsel through the summary disposition proceeding was permitted to withdraw.