

MEMO

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Date:
April 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 January through March 2021.

As of March 31, 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 11 sheds where Retro-Coat™ has been proposed have had it applied to the floor. The status of the remaining shed is discussed below:
 - 1 of 11 property owners with sheds have not approved Retro-Coat™ application due to the conditions of the roof on the shed, which makes entry unsafe.
- 10 of 16 detached garages have had Retro-Coat™ applied to the floor. The status of the remaining 6 are discussed below:
 - 3 detached garages are currently pending.
 - 3 detached garage owners have not approved Retro-Coat™ application.

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

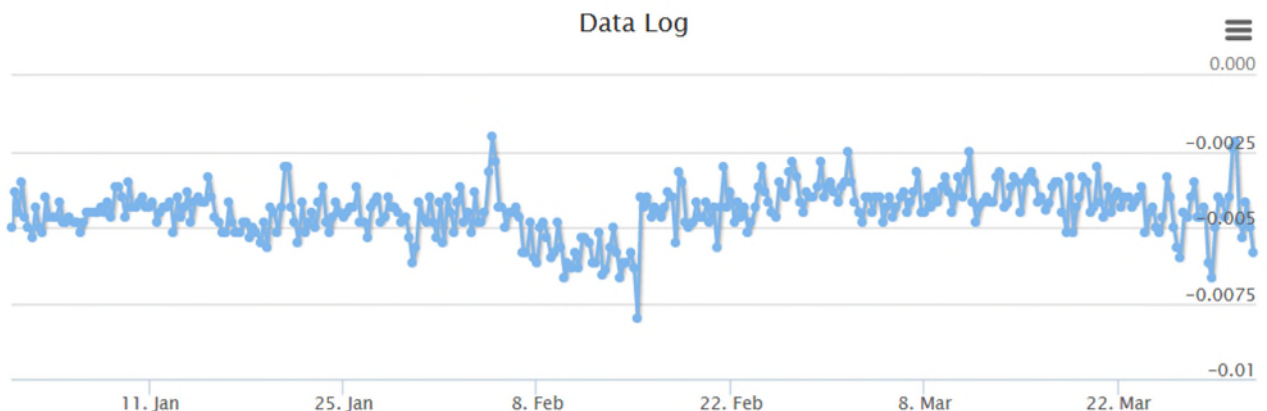
Ford has established an Electrical Reimbursement Program to reimburse residents for the electrical costs associated with the operation of the air purifiers and interim preemptive mitigation systems. The Electrical Reimbursement Program is administrated by Arcadis on behalf of Ford. Arcadis has received the necessary paperwork back from 24 of 31 residents and has processed the initial payments along with the Q1 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. 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. The first routine annual OM&M monitoring event was completed on February 22, 2021. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc.
- **34424 Beacon** – The system is currently in routine operation and maintenance. The first routine annual OM&M monitoring event was completed on February 22, 2021. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc.
- **34450 Beacon** – The system is currently in routine operation and maintenance. The first routine annual OM&M monitoring event was completed on February 16, 2021. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc.

On March 29, 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 iwc.

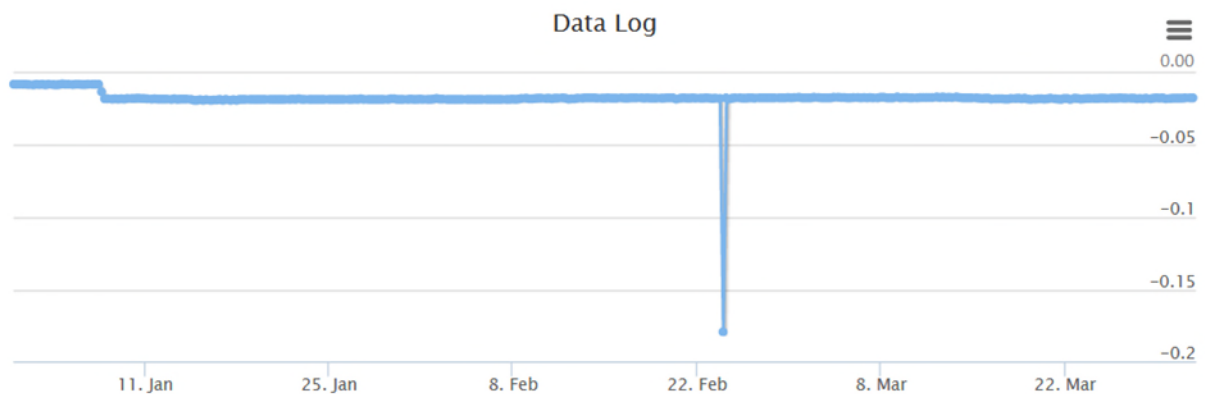
- **34550 Beacon** – The system is currently in routine operation and maintenance. The first routine annual OM&M monitoring event was completed on February 17, 2021. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc.
- **34591 Beacon** – The system is currently in routine operation and maintenance. The first routine annual OM&M monitoring event was completed on February 15, 2021. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc, except SSMP-1 which is being continuously monitored by a vacuum transmitter. 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.



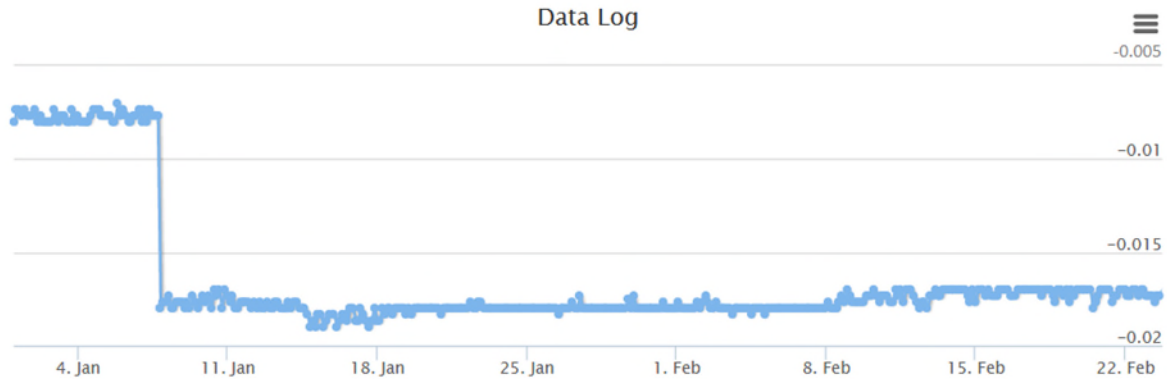
On February 15, 2021, during the OM&M visit, the vacuum transmitter was recalibrated.

On March 29, 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 iwc except SSMP-1 which is being continuously monitored by a vacuum transmitter.

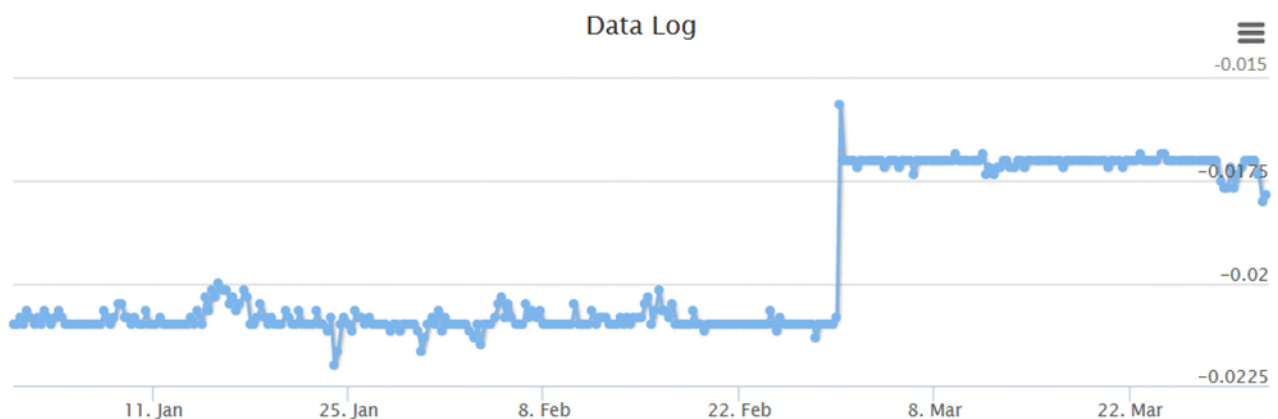
- **34600 Beacon** – The system is currently in routine operation and maintenance. The first routine annual OM&M monitoring event was completed on February 18, 2021. No damage was observed to the Retro-Coat™.
- **34644 Beacon** – The system is currently in routine operation and maintenance. The second routine semi-annual OM&M monitoring event was completed on March 17, 2021. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc.
- **34682 Beacon** – The system is currently in routine operation and maintenance. On January 7, 2021, Arcadis completed a system check at the property at the request of the homeowner. Arcadis collected the following vacuum readings: MP-4: -0.009 in wc, MP-5: -0.004 in wc, SSMP-1: -0.004 in wc, SSMP-2: -0.016 in wc, SSMP-3: -0.001 in wc, SSMP-4: -0.004 in wc, and SSMP-5: 0.000 in wc. Arcadis was unable to schedule the first routine annual OM&M monitoring event with the homeowner during the heating season. Arcadis will schedule the first routine annual OM&M monitoring event during the fourth quarter of 2021. 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 system continues to operate effectively. The transmitter data provided within previous monthly updates has also shown that vacuum in the area being monitored by the transmitter has been maintained. System adjustments will be made to increase performance in the crawl space area.



A zoomed in view of the data recorded by the vacuum transmitter at monitoring point MP-5 is shown below.



- **34920 Beacon** – The system is currently in routine operation and maintenance. The first routine annual OM&M monitoring event was completed on February 15, 2021. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc.
- **34940 Beacon** – The system is currently in routine operation and maintenance. The second routine semi-annual OM&M monitoring event was completed on February 26, 2021. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc.
- **34950 Beacon** – The system is currently in routine operation and maintenance. The first routine annual OM&M monitoring event was completed on February 24, 2021. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc.
- **34990 Beacon** – The system is currently in routine operation and maintenance. The first routine annual OM&M monitoring event was completed on March 1, 2021. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc, except MP-7. On March 1, 2021 Arcadis recalibrated the vacuum transmitter located at MP-7. 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.

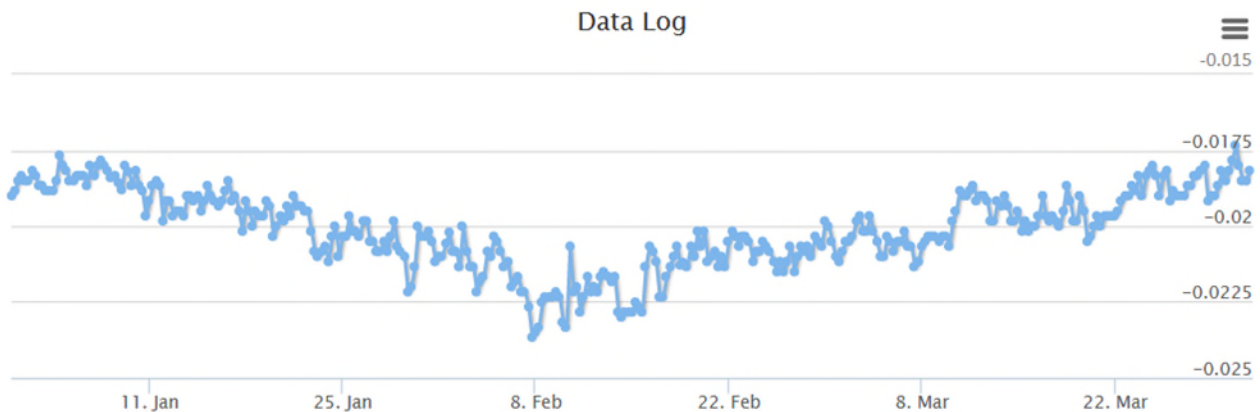


The property owner has denied the application of Retro-Coat™ in the detached garage since the floor has an existing epoxy coating and imbedded tubing for radiant heat.

- **12066 Boston Post** – The system is currently in routine operation and maintenance. The first routine annual OM&M monitoring event was completed on February 18, 2021. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc.

On March 29, 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 one gallon of water, which had flowed in through the crawlspace door, on the barrier. Vacuum influence measurements were collected after the 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. The first routine annual OM&M monitoring event was completed on February 23, 2021. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc, except MP-1. 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.

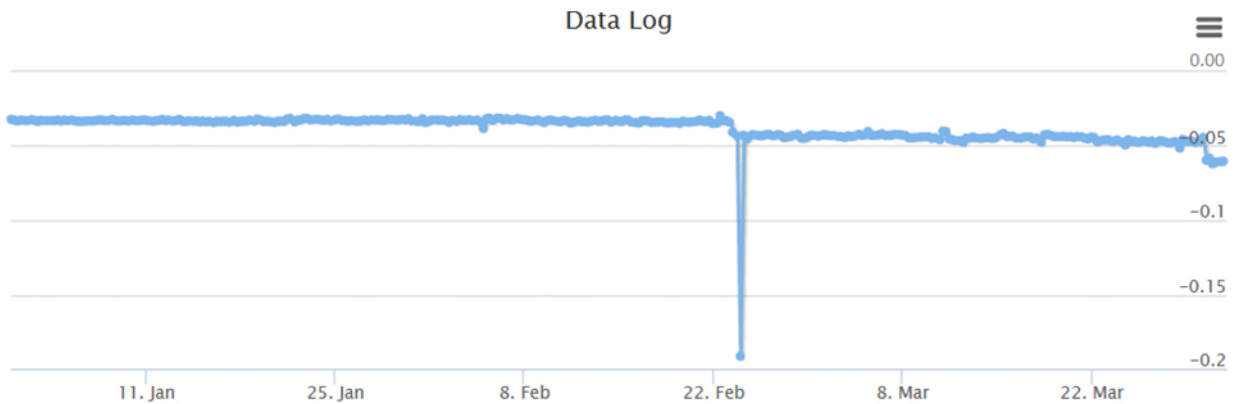


On March 29, 2021 Arcadis inspected the crawlspace at this property after a rain event produced more than 1 inch of rain in a 24-hour period. Arcadis did not observe any water on the barrier. Vacuum influence measurements were collected after the rain event and exceeded the performance metric established by EGLE of -0.02 iwc, except MP-1 where vacuum is monitored continuously by a transmitter.

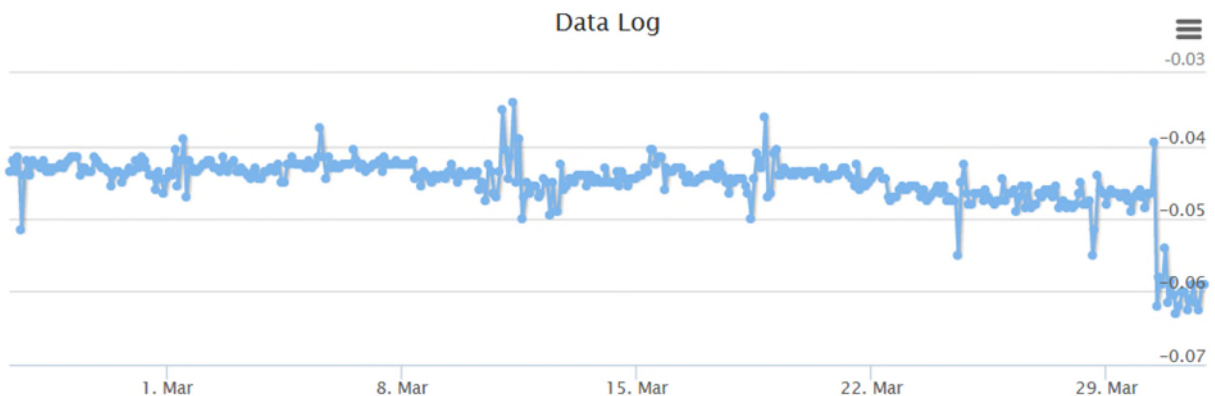
- **12070 Boston Post** – The system is currently in routine operation and maintenance. The first routine annual OM&M monitoring event was completed on February 17, 2021. Arcadis collected the following vacuum influence readings; MP-1: -0.102 in wc, MP-2: -0.069 in wc, MP-3: -0.048 in wc, MP-4: -0.019 in wc, SSMP-1: -0.061 in wc, SSMP-2: -0.047 in wc, and SSMP-3: -0.015 in wc. Arcadis inspected the seams and the barrier around this monitoring point and identified a seam to repair and seal. Following the brief repairs, Arcadis collected and recorded a second round of vacuum influence readings; MP-1: -0.097 in wc, MP-2: -0.065 in wc, MP-3: -0.046 in wc, MP-4: -0.026 in wc, SSMP-1: -0.063 in wc, SSMP-2: -0.041 in wc, and SSMP-3: -0.028 in wc. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc.
- **12089 Boston Post** – The system is currently in routine operation and maintenance. The first routine annual OM&M monitoring event was completed on February 18, 2021. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc.
- **12100 Boston Post** – The installation of the interim preemptive mitigation system in the crawlspace and attached garage was completed on March 25, 2019 and is currently in routine operation and maintenance. The sub slab depressurization portion of the system in the raised slab living area was also installed, however vacuum influence does not exceed the performance metric established by EGLE of -0.02 in wc at the sub-slab monitoring point SSMP-2. The first routine annual OM&M monitoring event was completed on February 23, 2021. All monitoring points except the one located in

the raised slab living area (SSMP-2) achieved the performance metric established by EGLE of -0.02 in wc. Arcadis also conducted fan cleaning to address observations from the homeowner that the fan was running louder than normal on March 2, 2021 and March 30, 2021.

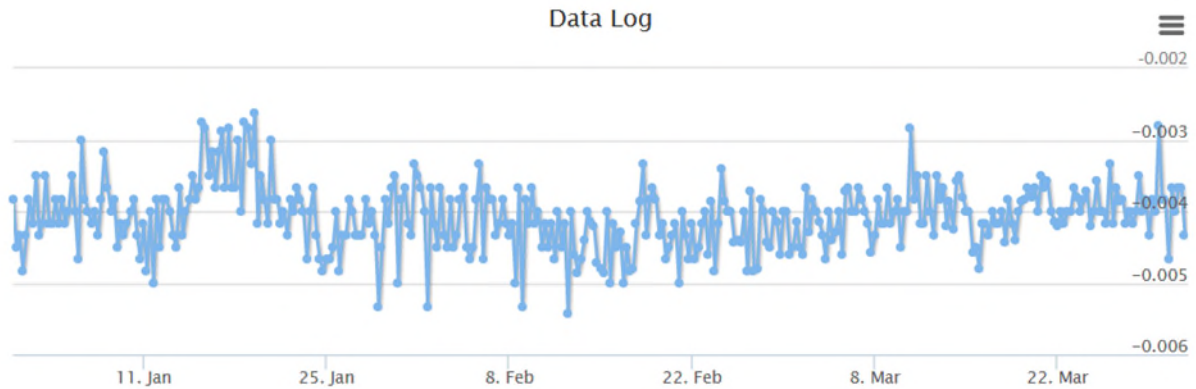
An update of the data logged by the vacuum transmitter connected to sub-slab monitoring point SSMP-4 is presented below demonstrating system continues to operate effectively.



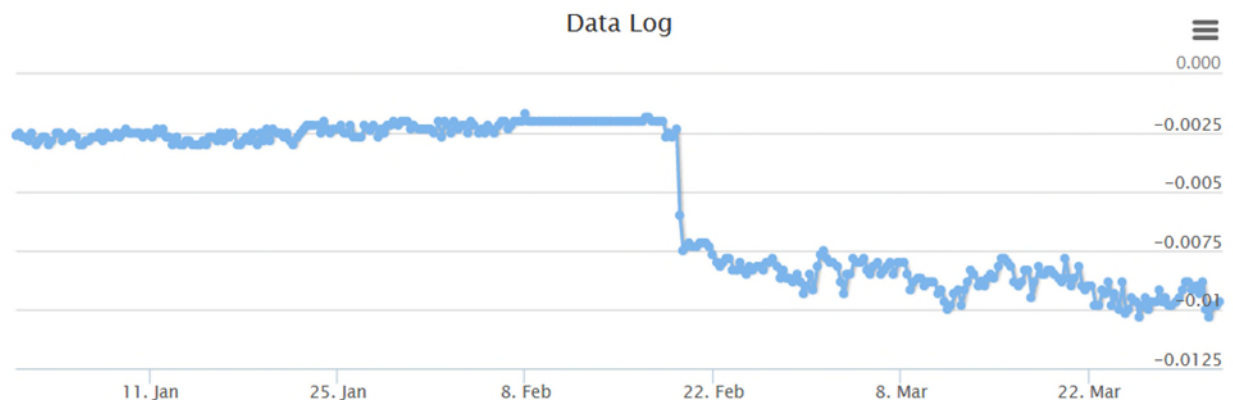
A zoomed in view of the data recorded by the vacuum transmitter at monitoring point SSMP-2 is shown below.



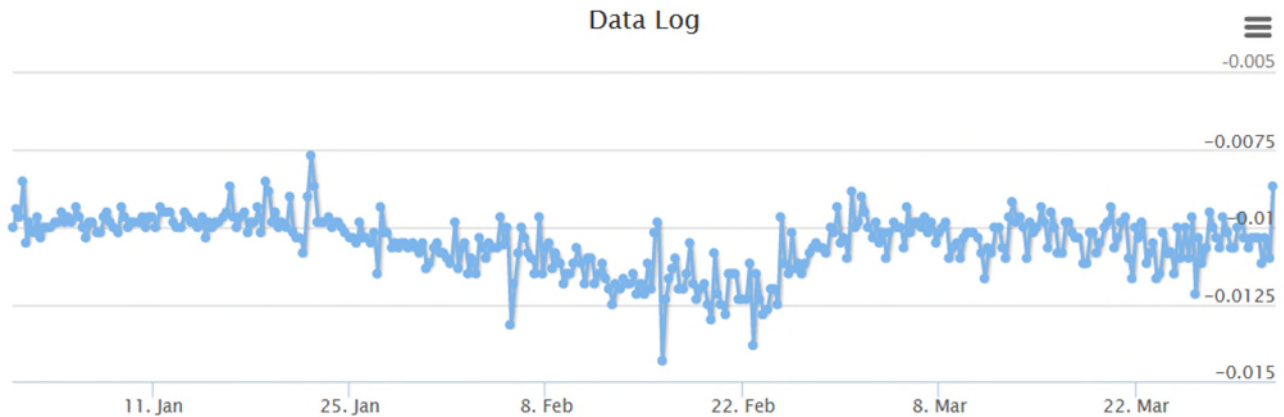
- **12131 Boston Post** –The system is currently in routine operation and maintenance. The first routine annual OM&M monitoring event was completed on February 24, 2021. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc except MP-4. An update of the data logged 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 monthly 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. The first routine annual OM&M monitoring event was completed on February 19, 2021. Arcadis collected the following vacuum influence readings following valve adjustment and minor seam repairs; MP-1: -0.021 in wc, MP-2: -0.012 in wc, MP-3: -0.029 in wc, MP-4: -0.006 in wc, SSMP-1: inaccessible, and SSMP-2: -0.006 in wc. Arcadis recalibrated the vacuum transmitter located at MP-4. 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 monthly 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. Arcadis has scheduled the first annual OM&M monitoring event for April 13, 2021.
- 12036 Brewster** – The system is currently in routine operation and maintenance. The first routine annual OM&M monitoring event was completed on February 16, 2021. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc except SSMP-2. 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. The first routine annual OM&M monitoring event was completed on February 15, 2021. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc.

On March 29, 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 iwc.

- **12088 Brewster** – The system is currently in routine operation and maintenance. Arcadis was unable to schedule the second routine semi-annual OM&M monitoring event during November and December 2020 due to COVID-19 concerns. The second routine semi-annual OM&M monitoring event was completed on February 24, 2021. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc.

On March 29, 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 iwc.

- **12091 Brewster** – The system is currently in routine operation and maintenance. The first routine annual OM&M monitoring event was completed on February 22, 2021. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc.
- **12101 Brewster** – The system is currently in routine operation and maintenance. The first routine annual OM&M monitoring event was completed on February 26, 2021. Arcadis recorded the following vacuum influence readings, all monitoring points achieved the performance metric established by EGLE of -0.02 in wc.

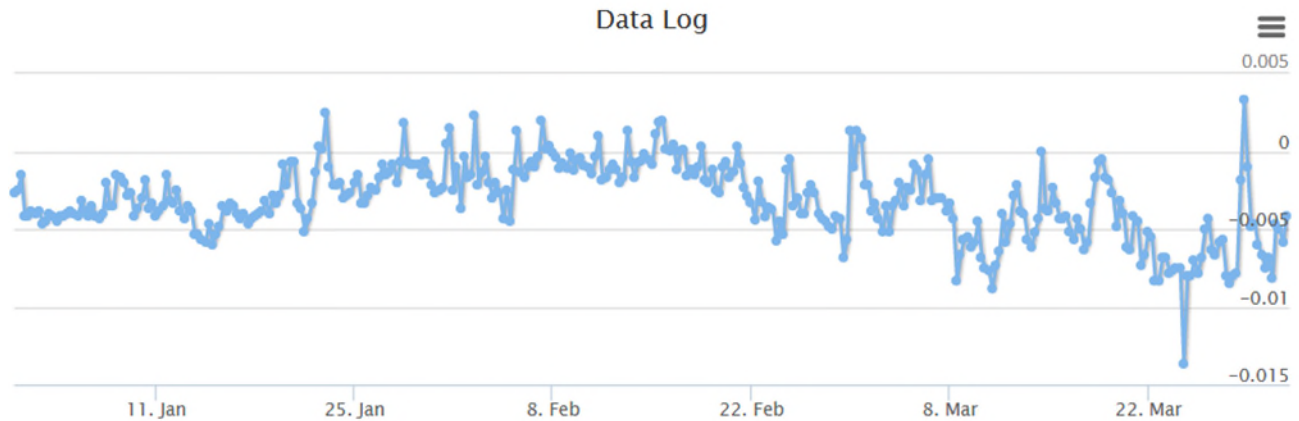
On March 29, 2021 Arcadis inspected the crawlspace at this property after a rain event produced more than 1 inch of rain in a 24-hour period. Arcadis removed approximately nine gallons of water on the barrier. Vacuum influence measurements were collected after the rain event and exceeded the performance metric established by EGLE of -0.02 iwc.

- **34367 Capitol** – The system is currently in routine operation and maintenance. The first routine annual OM&M monitoring event was completed on February 16, 2021. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc.

- **34380 Capitol Avenue** – The installation of the sub membrane depressurization system in the crawlspace portion of the home was completed on October 2, 2020 and is currently in routine operation and maintenance. The first routine semi-annual OM&M monitoring event was completed on February 25, 2021. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc. The first post-mitigation sampling was completed on January 14, 2021. On January 29, 2021, Arcadis provided the analytical data package to all required parties consistent with the access agreement after receipt and validation.
- **34401 Capitol** – The system is currently in routine operation and maintenance. The first routine annual OM&M monitoring event was completed on February 17, 2021. All monitoring points achieved the performance metric established by EGLE of -0.02 in wc.

On March 29, 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 iwc.

- **34424 Capitol Avenue** – The system is currently in routine operation and maintenance. The second routine semi-annual OM&M monitoring event was completed on February 17, 2021. All monitoring points, except SSMP-2 located in the slab area, achieved the performance metric established by EGLE of -0.02 in wc.
- **34450 Capitol Avenue** – The installation of the sub membrane depressurization system in the crawlspace portion of the home was completed on July 23, 2020 and is currently in routine operation and maintenance. The second routine semi-annual OM&M monitoring event was completed on March 11, 2021. All sub-membrane monitoring points achieved the performance metric established by EGLE of -0.02 in wc. On March 12, 2021, Arcadis collected post-mitigation IA and SS samples. The analytical data package will be provided to all required parties consistent with the access agreement after receipt and validation.
- **34480 Capitol** – The system is currently in routine operation and maintenance. On February 19, 2021, Arcadis responded to a notification from the property owner that the mitigation fan was louder than normal. Arcadis inspected the mitigation fan and cleaned the fan. The noise level from the fan decreased. Arcadis collected the following vacuum influence readings following the maintenance on the mitigation fan: MP-1: -0.020 in wc, MP-2: -0.011 in wc, MP-3: -0.011 in wc, and SSMP-2: -0.003 in wc. The first routine annual OM&M monitoring event was completed on March 8, 2021. Arcadis collected the following vacuum influence readings: MP-1: -0.018 in wc, MP-2: -0.012 in wc, MP-3: -0.012 in wc, and SSMP-2: -0.006 in wc. An update of the data logged by the vacuum transmitter connected to SSMP-2 is presented below. The positive spikes seen on the data log below occur intermittently and following the positive spikes, the vacuum transmitter recorded vacuum influence in the typical range. Arcadis has scheduled a visit with the homeowner to conduct a system check, calibrate the vacuum transmitter, and collect vacuum influence readings in April 2021.



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 part per billion.
- 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, 2020. Ford continues to pursue access through state court proceedings. Ford has moved for summary disposition on the access issue. Briefing is completed and the issue is before the Court for decision. The property owners at 12121 Boston Post are the only remaining property owners currently refusing to allow the mitigation systems to be installed at their properties.