

MEMO

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Date:
October 31, 2020

Arcadis Project No.:
30050315

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

On behalf of Ford Motor Company (Ford), Arcadis of Michigan, LLC (Arcadis) has prepared this monthly 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. Based on the groundwater data collected in the third quarter of 2019 from the shallow groundwater monitoring wells the 100-foot buffer line was modified. On November 13, 2019, EGLE sent Ford an email indicating that due to the 100-foot buffer line moving more to the north along Capitol, three (3) additional homes were added to the interim preemptive mitigation (IPM) program.

As of September 30, 2020, 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 to install and 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 will be administrated by Arcadis on behalf of Ford. On October 27, 2020, Arcadis sent a cover letter to the residents or a tenant if applicable along with a W-9, a return envelope, and the reimbursement plan for the resident. The W-9 will need to be filled out by the resident and returned for the reimbursement payments to process as required by the federal tax laws.

Once Arcadis receives the W-9, an initial payment to the resident will be issued. The initial payment will cover the electrical usage for the operation of purifiers or IPM's that occurred in the year of 2019 thru 3Q2020. Following this initial payment Arcadis will generate and mail a reimbursement payment on a quarterly basis.

Interim Preemptive Mitigation Systems Currently Operating

- **34424 Beacon** - The system is currently in routine operation and maintenance.
- **34450 Beacon** - The system is currently in routine operation and maintenance.
- **34550 Beacon** - The system is currently in routine operation and maintenance.
- **34600 Beacon** - The system is currently in routine operation and maintenance.
- **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.
- **12017 Brewster** - The system is currently in routine operation and maintenance.
- **12075 Brewster** - The system is currently in routine operation and maintenance.
- **12088 Brewster** - The system is currently in routine operation and maintenance.
- **12101 Brewster** - The system is currently in routine operation and maintenance.
- **34367 Capitol** - The system is currently in routine operation and maintenance.
- **12066 Boston Post** - The system is currently in routine operation and maintenance.
- **12070 Boston Post** - The system is currently in routine operation and maintenance.
- **12089 Boston Post** - The system is currently in routine operation and maintenance.
- **34380 Capitol Avenue** – On September 9, 2020 construction work began on the preemptive mitigation system. Throughout September, Arcadis completed the installation of the application of Retro-coat® to the basement walls, the application of Retro-coat® to the garage floor, and began the reconstruction of the finished basement rooms. During October 2020, Arcadis completed the installation of the depressurization system and restored finished portions of the basement. The IPM was commissioned on October 2, 2020. Vacuum influence readings were collected and readings at all monitoring points exceed the performance metric established by EGLE of -0.02; SSMP-2: -0.693 iwc and SSMP-3: -0.694 iwc.

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The commissioning sampling will be completed after the basement restoration and is being scheduled for early November.

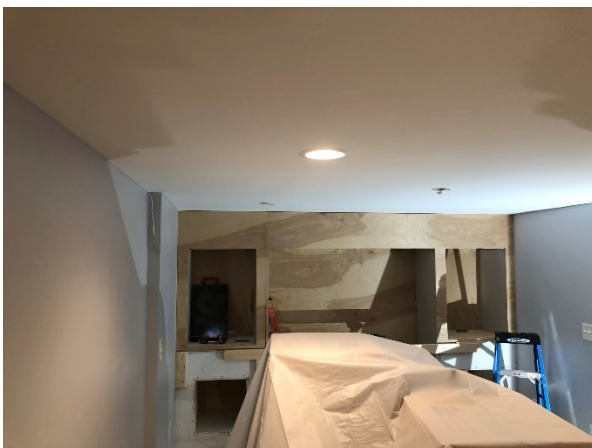
Pre-mitigation vapor intrusion sampling was also completed on August 28, 2020. The analytical data package was provided to all interested parties consistent with the access agreement on October 29, 2020.



Finished concrete pour, and retro-coat applied to the basement walls.



Rebuild of the finished walls in the basement.



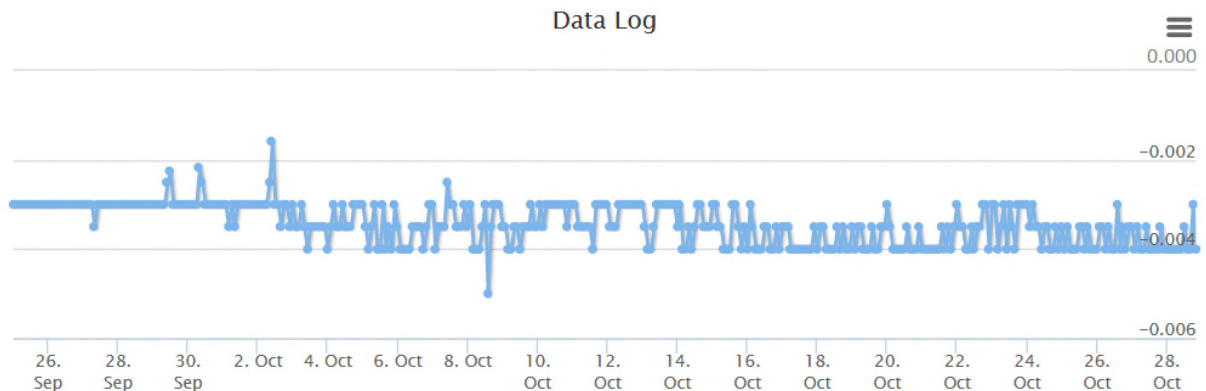
Reconstruction of the finished room in the basement.



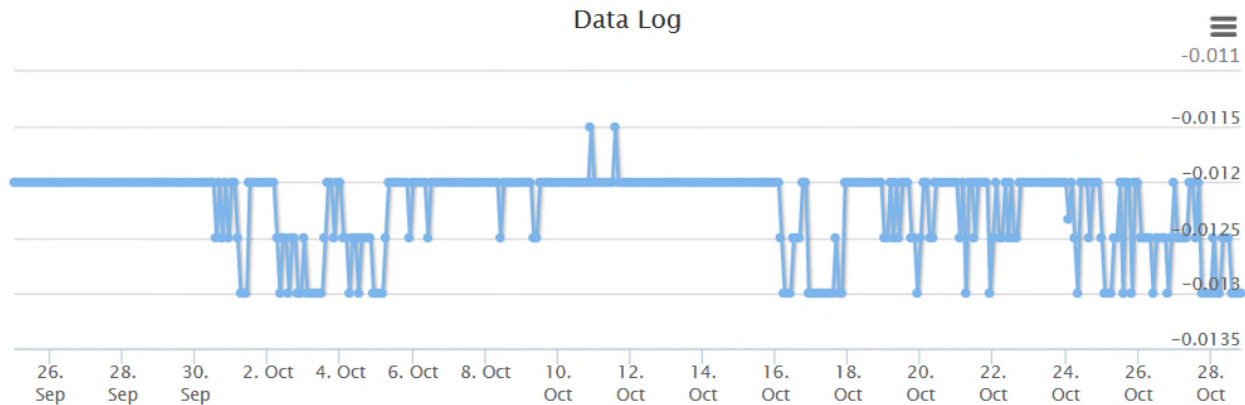
Retro-coat applied to the concrete floor in the garage.

- **34644 Beacon** – The system is currently in routine operation and maintenance. On September 10, 2020 Arcadis collected post mitigation IA and SS samples at the property. The analytical data package was provided to all interested parties consistent with the access agreement on October 28, 2020.
- **34401 Capitol** – The system is currently in routine operation and maintenance. On October 26, 2020, Arcadis began making repairs to the barrier in the crawlspace. Heat seaming and welding methods were utilized to seal leaks in the barrier. Repairs were completed on October 28, 2020, after repairs were made, Arcadis recorded the following vacuum influence readings; MP-1: -0.027 iwc, and MP-2: -0.027 iwc.

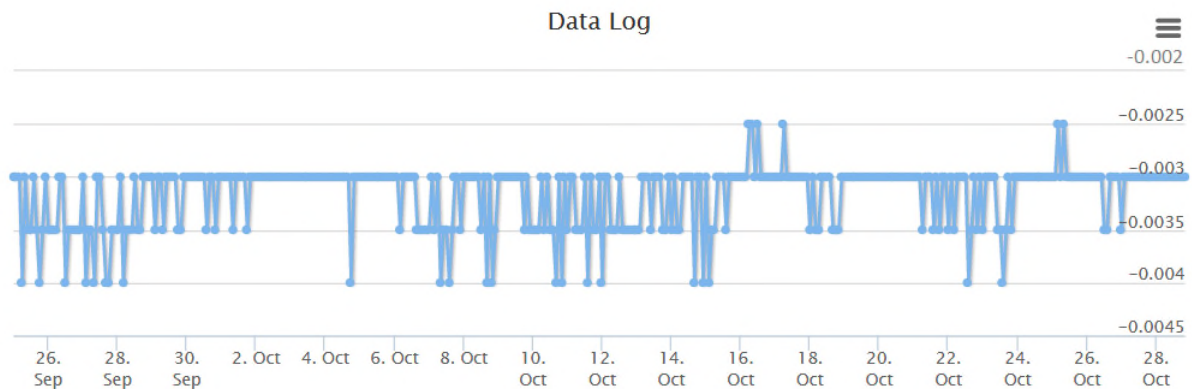
- **34380 Beacon** – The system is currently in routine operation and maintenance. The homeowner was not available during the first quarter 2020 heating season, so the final OM&M sampling event will occur in the fourth quarter during the heating season.
- **12091 Brewster** – The system is currently in routine operation and maintenance. On October 28, 2020, Arcadis spoke with the homeowner regarding the application of Retro Coat in his garage and the homeowner indicated that his brother has removed the car that was stored in his garage. The property owner would prefer not to have Retro-Coat™ applied in the fall of 2020. The garage is not inhabited or occupied at this time and is primarily used to store a motorcycle and vehicle. In addition, three rounds of pre-mitigation sub-slab vapor intrusion sampling have been completed beneath the garage to date, and there have been no exceedances of the seven constituents of concern (COCs) indicating that there is not a potential for vapor intrusion at this structure. A conceptual site model (CSM) for this structure was presented to EGLE on October 22, 2020. A proposed path forward for monitoring the VI potential at this structure was discussed with EGLE on October 22, 2020.
- **12131 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 vacuum is continuously being maintained and 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 the monthly updates has shown the level of vacuum in the area being monitored by the transmitter has been able to be maintained



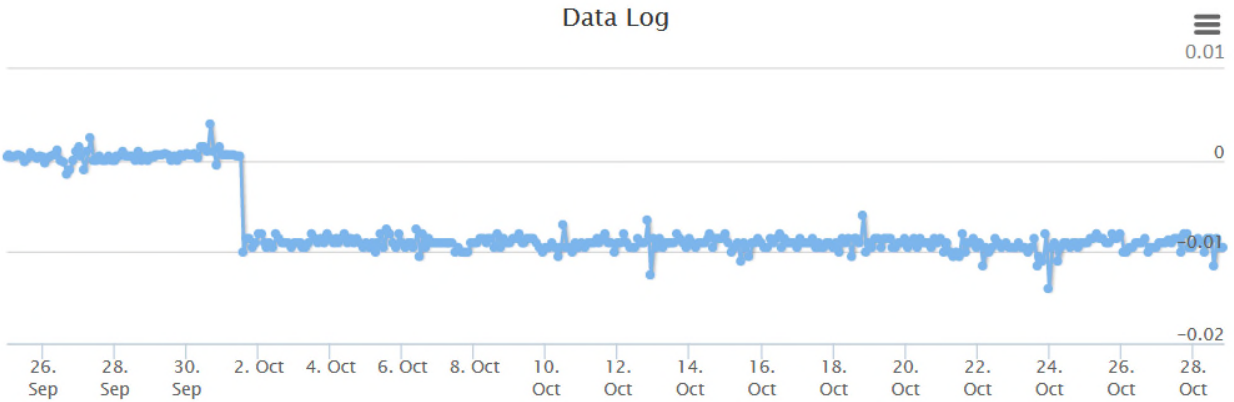
- **12067 Boston Post** – The system is currently in routine operation and maintenance. An update of the data logged by the vacuum transmitter connected to MP-1 is presented below demonstrating that vacuum is continuously being maintained and that the system continues to operate effectively. Additional heat sealing of barrier seams is scheduled for November 2020 in response to previous water entry into the crawlspace area.



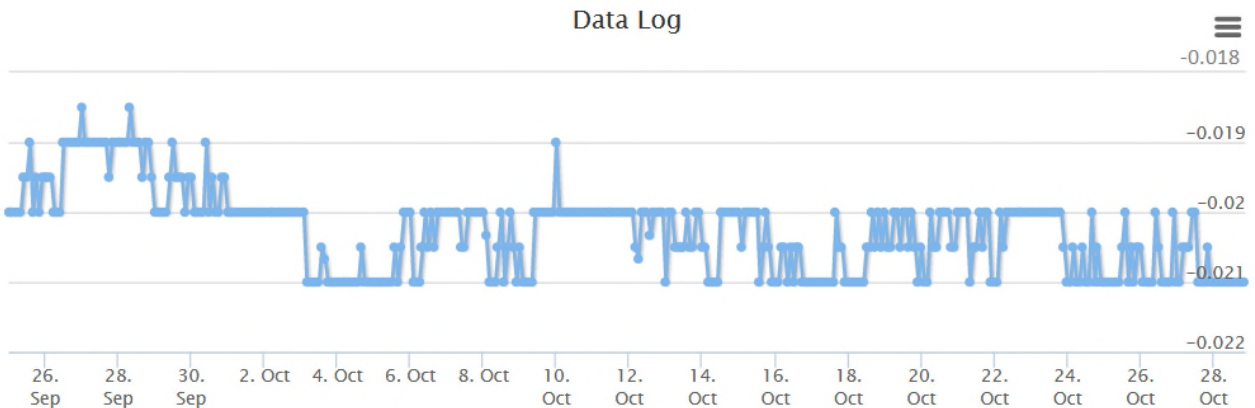
- 12141 Boston Post** – The system is currently in routine operation and maintenance. On September 15, 2020, Arcadis collected IA and SS samples. The analytical data package was provided to all interested parties consistent with the access agreement on October 29, 2020. An update of the data logged by the vacuum transmitter connected to MP-4 is presented below demonstrating that vacuum is continuously being maintained and that the system continues to operate effectively.



- 12036 Brewster** – The system is currently in routine operation and maintenance. On September 20, 2020, Arcadis received an alarm notification from the vacuum transmitter. The alarm was due to the transmitter not returning to normal conditions in the appropriate response time. Arcadis completed a system check and recalibrated the vacuum transmitter on October 1, 2020. Arcadis recorded the following vacuum influence readings; U-tube: -3.6 iwc, SSMP-1: -0.033 iwc, SSMP-2: -0.010 iwc, SSMP-3: -0.024 iwc, SSMP-4: -0.048 iwc, SSMP-5: -0.155 iwc). An update of the data logged by the vacuum transmitter connected to SSMP-2 is presented below demonstrating that vacuum is being maintained and that the system continues to operate effectively following the October 1, 2020 vacuum transmitter recalibration.



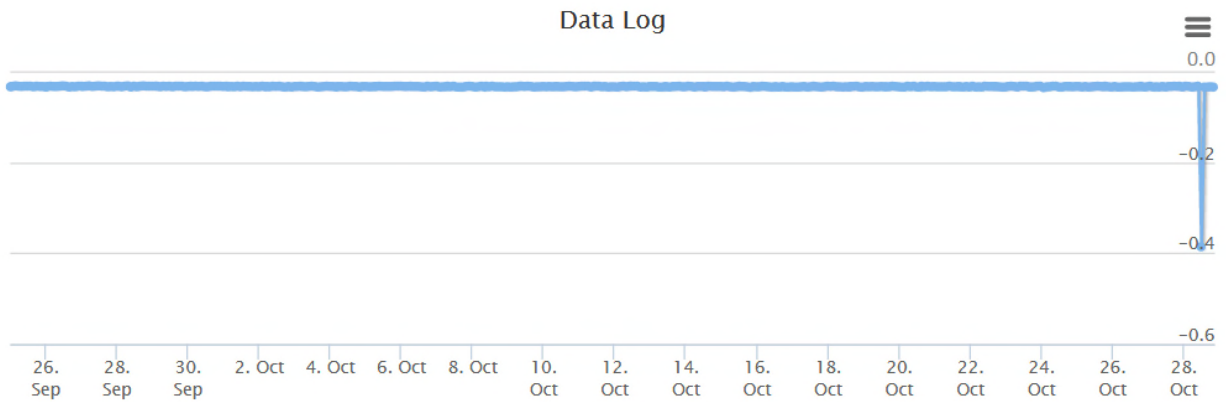
- 34990 Beacon** – The system is currently in routine operation and maintenance. The final routine OM&M sampling event scheduled for March 30, 2020 was delayed as a result of the stay at home order. The sampling event will be completed during the first quarter of 2021 so that it can be completed during the heating season. An update of the data logged by the vacuum transmitter connected to MP-7 is presented below demonstrating that vacuum is continuously being maintained and that the system continues to operate effectively.



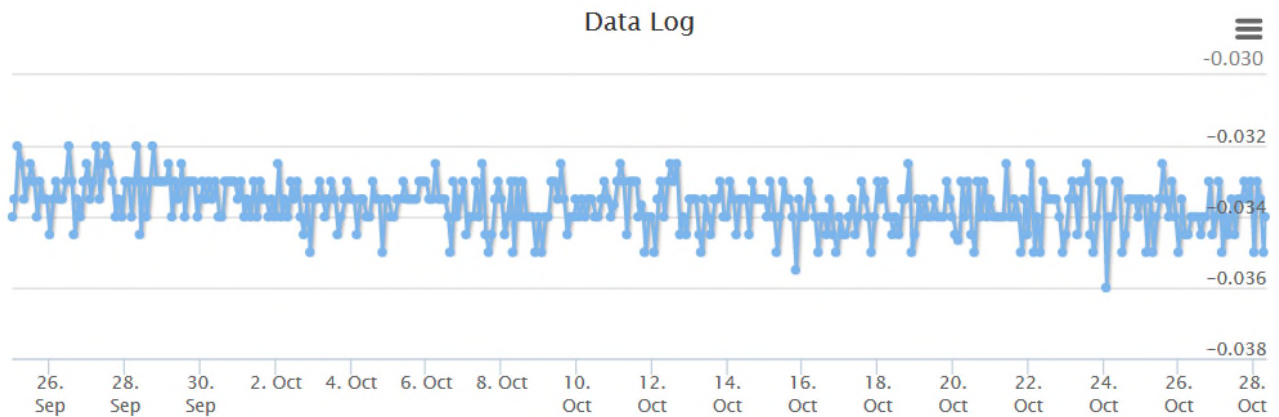
The property owner has denied the application of Retro-Coat™ in the detached garage since the floor has an existing epoxy coating and imbedded tubing for radiant heat. Arcadis will be preparing a CSM for this structure with a proposed path forward for monitoring the VI potential at this structure and will provide to EGLE for consideration.

- 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

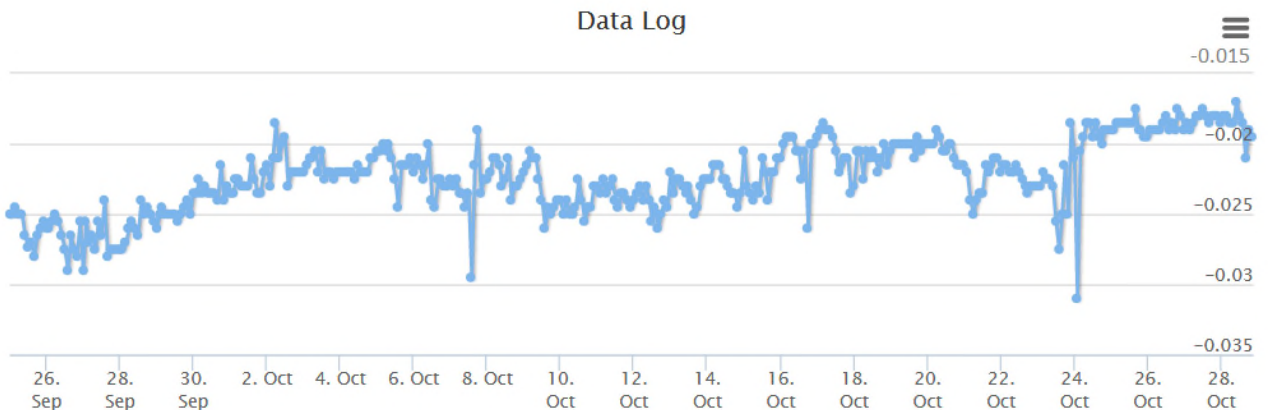
vacuum is continuously being maintained and that the system continues to operate effectively.



On October 28, 2020, at approximately 12:10pm power was lost to the property resulting in the negative spike shown above on the data log. The power was restored on October 28, 2020, at approximately 1:30pm and the vacuum readings returned to previous values. The data log below shows the readings for the month in more detail.

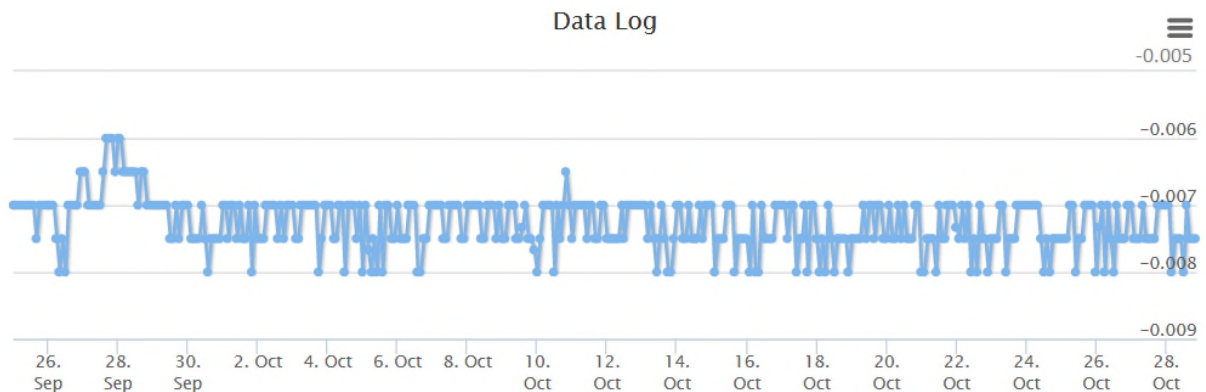


- **34480 Capitol** – The system is currently in routine operation and maintenance. An update of the data logged by the vacuum transmitter connected to SSMP-2 is presented below demonstrating that vacuum is continuously being maintained and that the system continues to operate effectively.



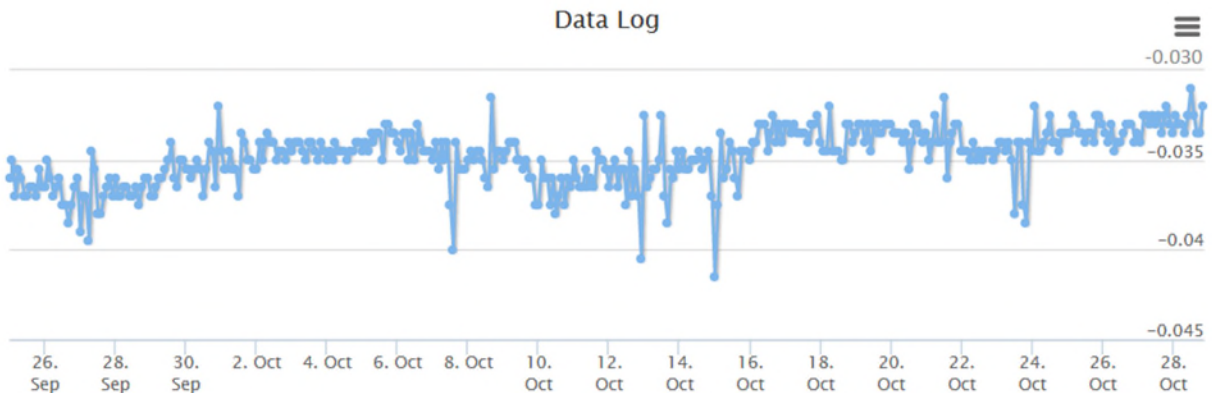
- 34682 Beacon** – The system is currently in routine operation and maintenance. Four rounds of indoor air (IA) and sub-slab (SS) data have been completed at this property. The initial sampling event included an indoor air sample from the crawl space. No detections of vinyl chloride were reported in any of the samples during pre and post mitigation sampling events. A CSM for the slab on grade areas represented by SSMP-1 and SSMP-4 was presented to EGLE on October 22, 2020. A proposed path forward for monitoring the VI potential at this structure will be provided to EGLE for consideration.

An update of the data logged by the vacuum transmitter connected to sub-membrane monitoring point MP-5 is presented below indicating that vacuum is being continuously maintained and that the system continues to operate effectively. The transmitter data provided within the monthly updates has shown the level of vacuum in the area being monitored by the transmitter has been able to be maintained



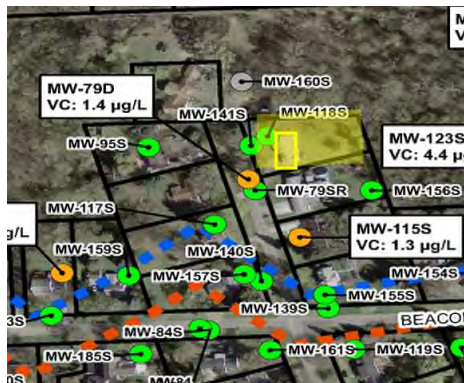
- 34450 Capitol Avenue** – The installation of the SMD system in the crawlspace was completed on July 23, 2020 and is currently in routine operation and maintenance. Three rounds of IA and SS data have been completed. The initial sampling event included an indoor air sample from the crawl space. No detections of vinyl chloride were reported in any of the samples during pre-mitigation sampling events. On October 22, 2020, Arcadis collected IA and SS samples. The analytical data package will be provided to all interested parties consistent with the access agreement after receipt and validation. A CSM for the slab on grade areas at this property was presented to EGLE on October 22, 2020. A proposed path forward for monitoring the VI potential at this structure will be provided to EGLE for consideration.
- 34424 Capitol Avenue** – The installation of the SMD system in the crawlspace was completed on February 13, 2020 and is currently in routine operation and maintenance. The SSD portion of the system was also installed, however vacuum influence does not exceed the performance metric established by EGLE of -0.02 iwc at all monitoring locations. A CSM for the slab on grade areas at this property was presented to EGLE on October 22, 2020. A proposed path forward for monitoring the VI potential at this structure will be provided to EGLE for consideration.
- 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 SSD 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 iwc at all monitoring locations. A CSM for the raised slab living area and the unmitigated shed at this property was presented to EGLE on October 22, 2020.

An update of the data logged by the vacuum transmitter connected to sub-slab monitoring point SSMP-4 is presented below demonstrating that vacuum is continuously being maintained at SSMP-4.



Interim Preemptive Mitigation Systems – Extension Requested

- 12124 Boston Post** – The property owner has declined an interim 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. Arcadis will be preparing a CSM for this structure with a proposed path forward for monitoring the VI potential at this structure and will provide to EGLE for consideration.



Location of upgradient monitoring wells MW-118S and MW-79SR

- 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.

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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 will continue to pursue access through that proceeding in state court. 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.

As discussed during the meeting with EGLE on October 22, 2020, Ford will be providing the mitigation updates on a quarterly basis, with the next mitigation update scheduled to be submitted in January 2021.