

# Memo

**SUBJECT**

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

**TO**

Jeanne Schlaufman  
Environmental Quality Specialist  
EGLE Warren District Office  
27700 Donald Court  
Warren, Michigan 48092-2793

**DATE**

October 31, 2022

**PROJECT NUMBER**

30146655

**COPIES TO**

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**FROM**

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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 2022.

As of September 30, 2022, 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 conceptual site models (CSM's) for 11 of the off-site properties. Arcadis on behalf of Ford submitted the second offsite residential CSM memo to EGLE on February 28, 2022. EGLE (Matt Williams) provided additional guidance to Arcadis on April 8, 2022, regarding the memo which is currently in development.

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

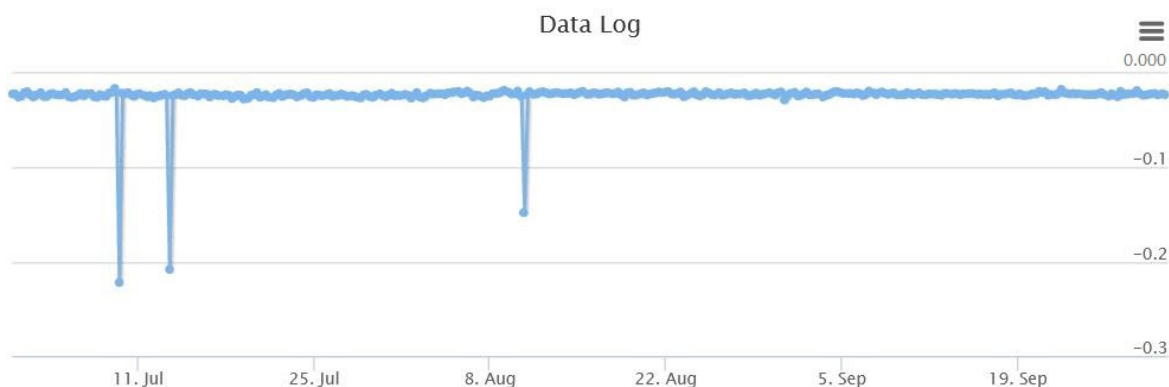
Arcadis submitted the annual operations, maintenance, and monitoring (OM&M) field logs for each property in 3Q 2022. The field logs document all activities completed at each property.

### **Interim Preemptive Mitigation Systems Currently Operating**

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

Arcadis inspected the crawlspace at this property after a rain event that produced more than 1 inch of rain in a 24-hour period on August 3, 2022. On August 6, 2022, Arcadis inspected the barrier and did not observe any water. Vacuum influence measurements were collected during the rain inspection and exceeded the performance metric established by EGLE of -0.02 inches of water column (iwc).

- **34550 Beacon** – The system is currently in operation and maintenance.
- **34591 Beacon** – The system is currently in 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.



In June 2022 Arcadis was contacted by the homeowner regarding an electrical breaker issue. An inspection was conducted on June 30, 2022 and all monitoring points achieved the performance metric established by EGLE of -0.02 iwc. Arcadis confirmed the IPM was operational and therefore not anticipated to be the cause of the electrical issue. The breaker for the vapor mitigation system was incorrectly applied to the wrong breaker which is why the homeowner attributed the issue to the system. Arcadis coordinated to have an electrician diagnose and troubleshoot the breaker issue on July 13, 2022. The electrician identified that two electrical circuits were connected together improperly on a circuit separate from the mitigation system, which

was causing a short and the breaker issue the homeowner was observing. The vapor mitigation system breaker label was placed on the correct breaker and the homeowner said he could make the repair and resolve the electrical issue.

Arcadis inspected the crawlspace at this property after a rain event that produced more than 1 inch of rain in a 24-hour period on August 3, 2022. On August 6, 2022, Arcadis inspected the barrier and did not observe any water. Vacuum influence measurements were collected during the rain inspection and exceeded the performance metric established by EGLE of -0.02 iwc except for SSMP-1 which is monitored continuously by a vacuum transmitter.

- **34600 Beacon** – The system is currently in operation and maintenance.
- **34644 Beacon** – The system is currently in operation and maintenance.
- **34682 Beacon** – The system is currently in 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 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.

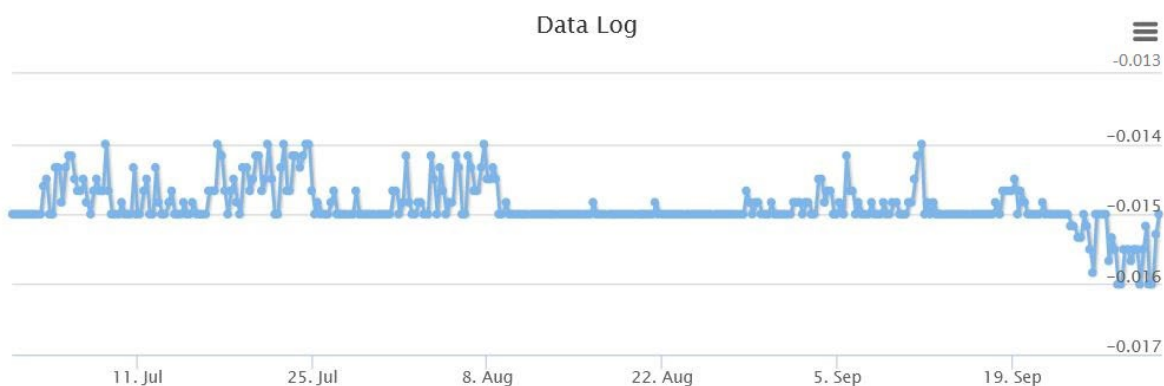


Below is a zoomed in portion of the data log showing the IPM system continuing to maintain vacuum level at the monitoring point.



Monitoring in accordance with the EGLE approved property specific monitoring program is underway. Recent quarterly groundwater sampling results for vinyl chloride at MW-115S have not exceeded the historic high of 3.9 µg/L observed in November 2019 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.

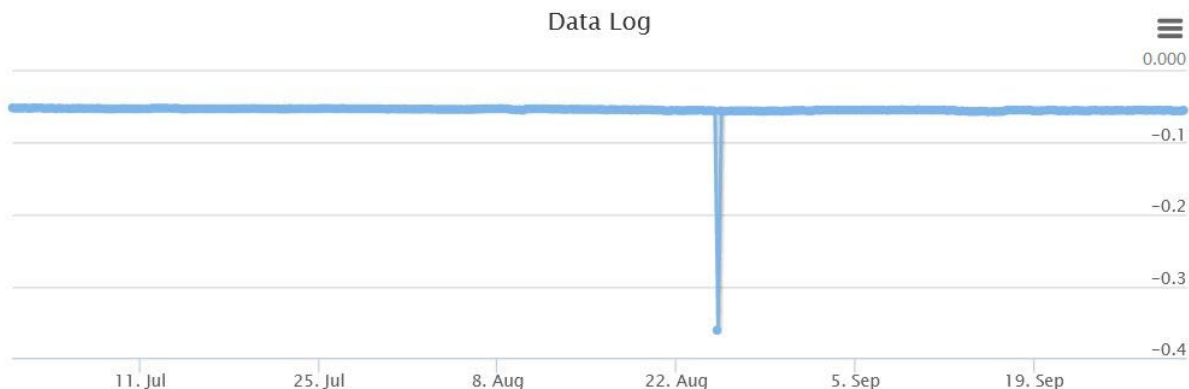
- **34920 Beacon** – The system is currently in operation and maintenance.
- **34940 Beacon** – The system is currently in operation and maintenance. On February 1, 2022, Arcadis inspected the Retro-Coat™ in the basement and no damage was observed on the basement walls, but damage was observed on the basement floor. The Retro-Coat on the floor had several large cracks and appeared to be coming up off the floor. Arcadis offered the property owner an air purifying unit, but the property owner declined. On March 28, 2022, Arcadis deployed two concrete moisture tests on the exposed concrete basement floor where the Retro-Coat™ was removed for the test. On March 31, 2022, Arcadis collected the two moisture tests and provided results to the manufacturer to determine the root cause. Arcadis is in discussions with the manufacturer to determine what will be the best primer to add to the basement floor prior to re-applying the Retro-Coat™. In addition, Arcadis is developing a path forward to discuss with EGLE in lieu of reapplying the Retro- Coat™.
- **34950 Beacon** – The system is currently in operation and maintenance.
- **34990 Beacon** – The system is currently in 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 vapor intrusion potential associated with the slab at this property.

- **12066 Boston Post** – The system is currently in operation and maintenance.  
Arcadis inspected the crawlspace at this property after a rain event that produced more than 1 inch of rain in a 24-hour period on August 3, 2022. On August 6, 2022, Arcadis inspected the barrier and removed approximately 10 gallons of water. Vacuum influence measurements were collected during the rain inspection and exceeded the performance metric established by EGLE of -0.02 iwc.

- **12067 Boston Post** – The system is currently in 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.



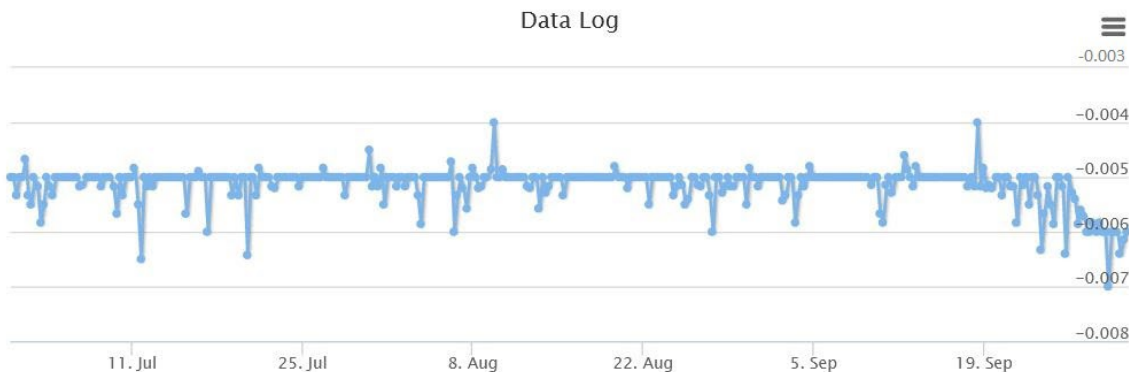
Arcadis inspected the crawlspace at this property after a rain event that produced more than 1 inch of rain in a 24-hour period on August 3, 2022. On August 6, 2022, Arcadis inspected the barrier and removed approximately 60 gallons of water. Vacuum influence measurements were collected during the rain inspection and exceeded the performance metric established by EGLE of -0.02 iwc except for MP-1 which is monitored continuously by a vacuum transmitter.

- **12070 Boston Post** – The system is currently in operation and maintenance.
- **12089 Boston Post** – The system is currently in operation and maintenance.
- **12100 Boston Post** – The system is currently in 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 the system continues to operate effectively.

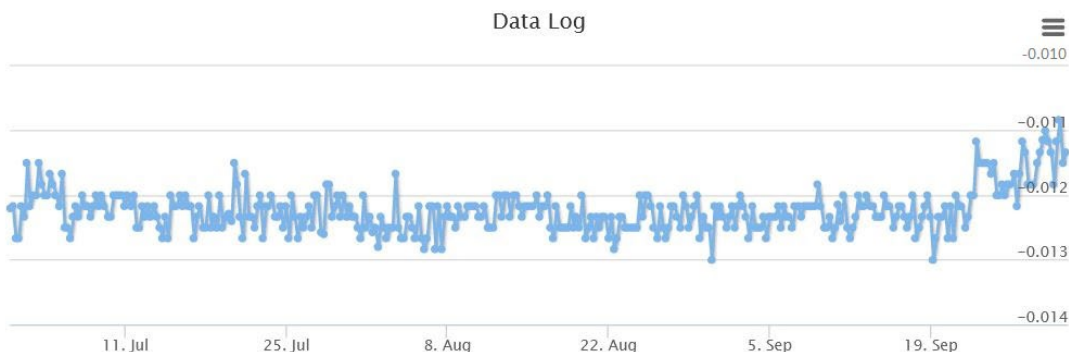


Monitoring in accordance with the EGLE approved property specific monitoring program is underway. Recent quarterly groundwater sampling results for vinyl chloride at MW-115S have not exceeded the historic high of 3.9 µg/L observed in November 2019 and have not exceeded the groundwater screening level of 1.0 µg/L at MW-79SR and MW-155S. Therefore, sub-slab sampling was not required.

- **12131 Boston Post** –The system is currently in 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 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 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 operation and maintenance.
- **12036 Brewster** – The system is currently in 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 operation and maintenance.  
Arcadis inspected the crawlspace at this property after a rain event that produced more than 1 inch of rain in a 24-hour period on August 3, 2022. On August 6, 2022, Arcadis inspected the barrier and did not observe any water. Vacuum influence measurements were collected during the rain inspection and exceeded the performance metric established by EGLE of -0.02 iwc.
- **12088 Brewster** – The system is currently in operation and maintenance.  
Arcadis inspected the crawlspace at this property after a rain event that produced more than 1 inch of rain in a 24-hour period on August 3, 2022. On August 6, 2022, Arcadis inspected the barrier and did not observe any water. Vacuum influence measurements were collected during the rain inspection and exceeded the performance metric established by EGLE of -0.02 iwc.
- **12091 Brewster** – The system is currently in operation and maintenance. Monitoring in accordance with the EGLE approved property specific monitoring program is underway.  
Quarterly groundwater sampling results for vinyl chloride at MW-123S and MW-151S have not exceeded the historic high of 4.6 µg/L observed in December 2018. Therefore, sub-slab sampling was not required.
- **12101 Brewster** – The system is currently in operation and maintenance.  
Arcadis inspected the crawlspace at this property after a rain event that produced more than 1 inch of rain in a 24-hour period on August 3, 2022. On August 6, 2022, Arcadis inspected the barrier and removed approximately 15 gallons of water. Vacuum influence measurements were collected during the rain inspection and exceeded the performance metric established by EGLE of -0.02 iwc.
- **34367 Capitol Avenue** – The system is currently in operation and maintenance.
- **34380 Capitol Avenue** – The system is currently in operation and maintenance.
- **34401 Capitol Avenue** – The system is currently in operation and maintenance.  
Arcadis inspected the crawlspace at this property after a rain event that produced more than 1 inch of rain in a 24-hour period on August 3, 2022. On August 6, 2022, Arcadis inspected the barrier and did not observe any water. Vacuum influence measurements were collected during the rain inspection and exceeded the performance metric established by EGLE of -0.02 iwc.

- **34424 Capitol Avenue** –The system is currently in operation and maintenance. Monitoring in accordance with the EGLE approved property specific monitoring program is underway.

Quarterly groundwater sampling results for vinyl chloride at MW-136S have not exceeded the historic high of 1.4 µg/L observed in November 2020; at MW-148S have not exceeded the historic high of 2.3 µg/L observed in November 2020; 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.

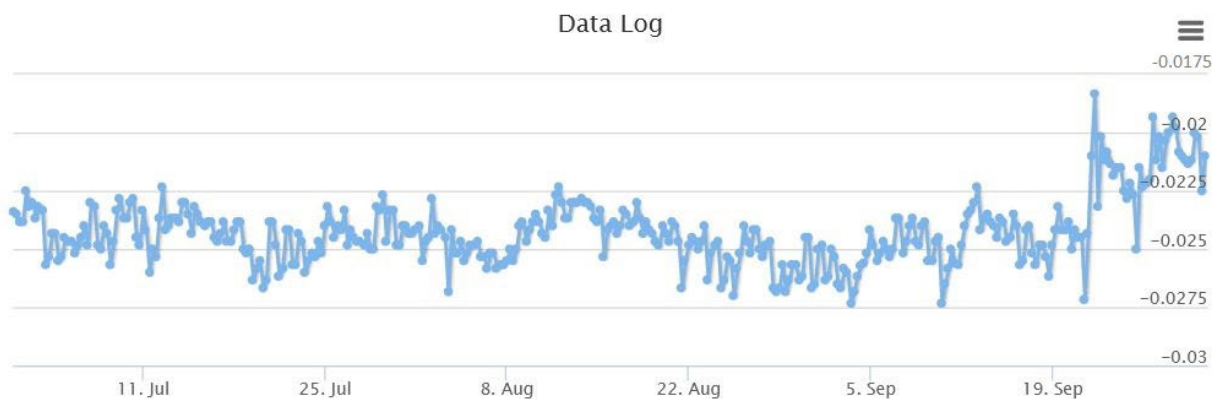
One additional round of sub-slab soil gas sample will be collected in 4Q2022.

- **34450 Capitol Avenue** – The system is currently in operation and maintenance. Monitoring in accordance with the EGLE approved property specific monitoring program is underway.

Quarterly groundwater sampling results for vinyl chloride at MW-137S have not exceeded the historic high of 1.1 µg/L observed in September 2019 and have not exceeded the groundwater screening level of 1.0 µg/L at MW-108S, MW-168S, and MW-169S. Therefore, sub-slab sampling was not required.

- **34480 Capitol Avenue** – The system is currently in 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 (8 rounds) and MW-79SR (9 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. EGLE has reviewed the plan and requested additional information. Arcadis is currently working on providing the additional information.



- **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. Under the supervision of EGLE, Ford is continuing to monitor groundwater proximate to the home to accommodate the homeowners' refusal to grant access to their property for other investigation, characterization, or mitigation activities.