

**HOWELL TOWNSHIP BOARD
REGULAR MEETING**

3525 Byron Road
Howell, MI 48855
July 14, 2025
6:30 pm

1. Call to Order
2. Roll Call: () Mike Coddington () Matt Counts
 () Sue Daus () Tim Boal
 () Jonathan Hohenstein () Shane Fagan
 () Bob Wilson
3. Pledge of Allegiance
4. Call to the Board
5. Approval of the Minutes:
 - A. Regular Board Meeting June 9, 2025
 - B. Request to add Trustee Wilson's statement as an addendum to the May Board meeting
 - C. Request to add Trustee Boal's rebuttal to Trustee Wilson's statement as an addendum to the May Board meeting
6. Call to the Public
7. Unfinished Business:
 - A. Howell Township Hall Renovations and Community Center
 - B. Howell Twp. V. Fagan – Appeal
 - C. Cybersecurity / IT – Discussion
 - D. ADU Ordinance
8. New Business:
 - A. NSC Zoning District – Text Amendment
 - B. Cemetery Digitization Proposal
 - C. EMS Polling Place Lease Agreement
 - D. Wrangler's Saloon REU Reduction Request
 - E. Letter of Intent to Purchase – Marr Road and Oak Grove Road Property
 - F. Park Master Plan Proposal
9. Call to the Public
10. Reports:

A. Supervisor	B. Treasurer	C. Clerk	D. Zoning
E. Assessing	F. Fire Authority	G. MHOG	H. Planning Commission
I. ZBA	J. WWTP	K. HAPRA	L. Property Committee
M. Park & Recreation Committee	N. Shiawassee River Committee		
11. Disbursements: Regular and Check Register
12. Adjournment

5A

DRAFT

HOWELL TOWNSHIP REGULAR BOARD MEETING MINUTES

3525 Byron Road Howell, MI 48855

June 9, 2025

6:30 P.M.

MEMBERS PRESENT:

Mike Coddington	Supervisor
Sue Daus	Clerk
Jonathan Hohenstein	Treasurer
Tim Boal	Trustee
Matt Counts	Trustee
Shane Fagan	Trustee
Bob Wilson	Trustee

MEMBERS ABSENT:

Also in Attendance:

One person signed in.

Supervisor Coddington called the meeting to order at 6:30 p.m. The roll was called. All rose for the Pledge of Allegiance.

CALL TO THE BOARD:

Trustee Fagan requested to add 7-B American Legion

Supervisor Coddington requested to postpone 5-B, request to add Trustees Wilson's statement as an addendum to the May Board meeting packet, until the July Board meeting.

APPROVAL OF THE AGENDA:

June 9, 2025

Motion by Daus, **Second** by Fagan, **"To approve the agenda."** Motion carried.

APPROVAL OF BOARD MEETING MINUTES:

May 12, 2025

REGULAR BOARD MEETING MINUTES

Motion by Hohenstein, **Second** by Boal, **"To accept the minutes for the regular board meeting of May 12th as presented."** Motion carried, one dissent.

May 12, 2025

BUDGET MEETING MINUTES

Motion by Counts, **Second** by Hohenstein, **"Move approval."** Motion carried.

May 12, 2025

CLOSED SESSION MINUTES

Motion by Hohenstein, **Second** by Daus, **"To accept the closed session meeting minutes for May 12th as presented."** Motion carried.

CALL TO THE PUBLIC:

John Mills 1750 Oak Grove Rd.: Spoke on solar energy, and censorship of Trustee Wilson.

UNFINISHED BUSINESS:

- A. Howell-Mason LLC v. Howell Township
Treasurer Hohenstein stated that the court documents for Howell-Mason v. Howell Township were added to the packet for the Board's review. Discussion followed.
- B. American Legion
Motion by Fagan, **Second** by Wilson, **"To pass the resolution to dismiss the ticket issued against the American Legion Post 141."** Discussion followed. Trustee Fagan rescinded the motion, Trustee Wilson approved. **Motion** by Fagan, **Second** by Wilson, with a friendly amendment **"To table this until we have legal review of the resolution."** Discussion followed. Trustee Fagan amended motion **"To get a legal opinion on the resolution after two weeks of no communication is made or achieved between the American Legion and Howell Township."** Roll call vote: Daus – yes, Wilson – yes, Fagan – yes, Coddington – yes, Hohenstein – yes, Counts – yes, Boal – yes. Motion carried (7-0).

NEW BUSINESS:

- A. Township Credit Card System
Treasurer Hohenstein discussed that the current credit card system that the Township is using will be raising their processing interest rate from 2.75% to 3.5%. This prompted the Township to seek out other credit card processing options. The Township software company, BS&A offers a credit card processing application with a lower interest rate and additional payment options. Treasurer Hohenstein is requesting guidance/approval on how the Board would like to move forward. **Motion** by Counts, **Second** by Hohenstein, **"To approve the usage of BS&A for credit card processing and the purchase of the terminal as presented in item 8-A in the packet."** Discussion followed. Motion carried.
- B. Pay Increases for 2025/2026 Budget Year
Supervisor Coddington discussed that the Human Resource Committee's minutes were included in the packet for the Board's review. Discussion followed. **Motion** by Counts, **Second** by Hohenstein, **"To suggest at least 4% for staff."** Motion carried.
- Motion** by Hohenstein, **Second** by Fagan, **"To accept resolution 06.25.553 for no increase."** Fagan – yes, Daus – yes, Coddington – yes, Wilson – yes, Counts – yes, Boal – yes, Hohenstein – yes. Motion carried (7-0).
- Motion** by Hohenstein, **Second** by Boal, **"To accept resolution 06.25.554 with no increase."** Boal – yes, Hohenstein – yes, Fagan – yes, Counts – yes, Wilson – yes, Coddington – yes, Daus – yes. Motion carried (7-0).
- Motion** by Hohenstein, **Second** by Fagan, **"To accept resolution 06.25.555 with no increase."** Wilson – yes, Boal – yes, Fagan – yes, Coddington – yes, Counts – yes, Daus – yes, Hohenstein – yes. Motion carried (7-0).
- Motion** by Hohenstein, **Second** by Boal, **"To accept resolution 06.25.556 with no increase."** Hohenstein – yes, Counts – yes, Wilson – yes, Boal – yes, Daus – yes, Coddington – yes, Fagan – yes. Motion carried (7-0).
- C. Alisa and Marc Seyburn, PC2025-03, 4706-12-400-010 request to rezone from SFR to AR
Treasurer Hohenstein gave a brief overview of the request to rezone from single family residential to agricultural residential. **Motion** by Wilson, **Second** by Fagan, **"To accept their parcel change rezoning."** Motion carried.

D. ADU Ordinance

Trustee Boal discussed the modifications to the proposed amendment for Accessory Dwelling Units (ADUs) in the Agricultural Residential (AR) District and Single Family Residential (SFR) District. Discussion followed. **Motion** by Boal, **"To accept the Planning Commission's recommendation for the proposed zoning ordinance amendments to regulate Accessory Dwelling Units."** Discussion followed. Motion failed due to no support. **Motion** by Hohenstein, **Second** by Counts, **"To send the ADU ordinance back to the Planning Commission to remove the condition of Planning Commission approval and the special land use requirement and to consider any additional guardrails or checkboxes to deal with concerns."** Roll call vote: Coddington – yes, Boal – no, Daus – yes, Counts – yes, Fagan – yes, Hohenstein – yes, Wilson – yes. Motion carried (6-1).

E. Mark Juett, PC2025-06, 4706-28-100-071, Vacant Hydraulic Dr., Special Land Use Permit

Treasurer Hohenstein discussed that the applicant is requesting Board approval for a special land use permit for outside RV storage. Discussion followed. **Motion** by Hohenstein, **Second** by Counts, **"To approve the special land use request from the Juett Outdoor Storage Parcel number 4706-28-100-071 based on the information provided by the applicant, staff, consultants and they meet the following standards of the zoning ordinance A) Will be harmonious with and in accordance with the general objectives, intent, purposes of this Ordinance in terms of their uses, activities, processes, materials, equipment, conditions of operation that will be detrimental to any person, property, or the general welfare of the surrounding area in which is located due to excessive production of traffic, noise, smoke, fumes, glare, or odors. B) Will be designed, constructed, operated, maintained and managed to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity C) Will be served adequately by essential public facilities and services D) Will not be hazardous or disturbing to existing or future neighboring uses E) Will not create excessive additional requirements at public cost for public facilities, utilities and services F) Will not have a substantial adverse impact upon the natural resources and environment on the lot or parcel."** Motion carried.

CALL TO THE PUBLIC

Kaye Don LeChevalier spoke on ADUs

REPORTS:

A. SUPERVISOR:

Supervisor Coddington discussed the job position for a Township Ordinance Enforcement Officer. Discussion followed.

B. TREASURER:

Treasurer Hohenstein reported on the following items:

Deputy Treasurer is requesting approval to attend the Governmental Accounting Webinar presented by BS&A.

Motion by Hohenstein, **Second** by Daus, **"Approval for the Deputy Treasurer to attend the Governmental Accounting Webinar presented by BS&A as presented."** Motion carried.

Deputy Treasurer Murrish is requesting approval for the Halloween event for 2025. **Motion** by Fagan, **Second** by Hohenstein, **"To approve the Halloween event."** Motion carried.

Cybersecurity and Audit Assessment. Discussion followed. It was the consensus of the Board to get more detailed information before coming to a decision.

C. CLERK:

Clerk Daus is requesting approval for herself and the Deputy Clerk to attend the Earned Sick Time Act (ESTA) and the Cemetery Challenges and Solutions one day conference presented by MTA. **Motion** by Hohenstein, **Second**

by Boal, **"To accept the class for both the Clerk and the Deputy Clerk for the ESTA and Cemetery Challenges as presented."** Motion carried.

D. ZONING:

Zoning Administrator Hohenstein reported that due to cyber scams that are taking place there will be some procedural changes for the Planning Commission

E. ASSESSING:

See Assessor Kilpela's prepared written report

F. FIRE AUTHORITY:

Supervisor Coddington reported on Fire Authority

G. MHOG:

Trustee Counts reported on MHOG

H. PLANNING COMMISSION:

Trustee Boal reported on Planning Commission

I. ZONING BOARD OF APPEALS (ZBA):

No report

J. WWTP:

Treasurer Hohenstein reported that the lights at the Wastewater Treatment Plant need to be updated to LED.

Motion by Hohenstein, **Second** by Daus, **"To accept the quote from K&J Electric for \$8,600.00 to convert lights to LEDs as presented."** Motion carried.

K. HAPRA:

See Clerk Daus's prepared written report

L. PROPERTY COMMITTEE:

Treasurer Hohenstein reported that there is a developer that is interested in the Marr and Oak Grove parcel for possible future development

M. PARK & RECREATION COMMITTEE:

No report

N. SHIAWASSEE COMMITTEE:

No report.

DISBURSEMENTS: REGULAR AND CHECK REGISTER:

Motion by Hohenstein, **Second** by Daus, **"To accept the disbursements as presented and any normal and customary payments for the month."** Motion carried.

ADJOURNMENT:

Motion by Counts, **Second** by Hohenstein, **"To adjourn."** Motion carried. The meeting adjourned (8:55 pm).

Howell Township Clerk
Sue Daus

Mike Coddington
Howell Township Supervisor

Tanya Davidson, Recording Secretary

5C

09 June, 2025

Howell Township Board.

Supplement to Item 5. B. Titled “*Request to add Trustee Wilson’s statement as an addendum to the May Board Meeting Packet....*”

In light of Trustee Wilson's nine page monologue/rebuttal to his recent Censure being allowed as a submittal with the June 9th 2025 Township Board Meeting Agenda Packet, even though it was without supporting documentation to confirm or verify his statements, I would request that this correspondence be attached to that submittal.

Trustee Wison offers unsubstantiated opinions, mistruths, twisted logic and slanders both residents and board members alike in his rebuttal. Furthermore, it exceeds the scope of the content of the actual Censure immensely.

In my opinion, it has no standing to be included in a formal agenda packet to give it legitimacy.

The following is a partial list of inaccuracies, mistruths and errors, most **WITH** supporting documentation attached or easily verifiable as inaccurate with public records.

Due to the 9 page length and sheer number of inaccuracies, for the sake of brevity, only *portions* of Trustee Wilson’s rebuttal have been addressed by the page number where the statement was made.

Page 1.

Concerning the delineators recently placed as obstructions in the roadway/deeded easement that was established over 40 years ago, there was never an attempt to to extend or widen the traveled portion of the road into “Hamms Yard”, this area referenced by Wilson was historically always used as traveled roadway until it was blocked off by Hamm.

There is no ditch in the area of Santa Rosa Dr. Wilson is referring to.

The only reference on recorded Deeds for the width of Santa Rosa Dr is 66 feet for ingress and egress. There is no 20 feet for a “roadway” as stated by Wison,

Mr. Fagan never expressed a concern over using asphalt millings on the roadway prior to them being delivered. He even made an offer to pay for them after they had been placed, although never has.

Hamm went as far as making the suggestion of coating the millings after they had been placed with diesel fuel to help them “bind”. (this was not done, for obvious environmental reasons) Hamm also has since used additional asphalt millings himself on the roadway.

A “bill” for the cost was ***never sent*** to either Hamm nor Fagan for the cost of the millings.

Page 2.

In 2020, after Hamm was *ordered* by the Court, per an Injunctive Order, to remove the obstructions he had placed in the roadway, it was restored to its original width by removing topsoil and vegetation Hamm had placed while he had the easement obstructed. There was *never* an attempt to make the road the entire width of the easement nor expand it beyond its historical norm.

Please produce the video you claimed to have seen in front of Hamm’s house where Hamm “bumped” into Boal. There was no “believed” video captured by Hamm of the assault when he was asked by the reporting Deputy to provide it and it never was submitted. (see page two of attached police report)

In 2023, Hamm pled *guilty* to a lesser included offense of Assault and Battery as part of a deferred sentencing arrangement. (see attached Court record for case)

Page 3.

Wilson states he “even made a motion” to appoint a planning commission member. However, on page six(6) ***denies*** being able to select planning commission members. Contradiction.

Page 4.

Wilson states "Fagan won his case". 53rd District Court record for case attached, clearly labeled Fagan was "Found Responsible".

Page 5.

Wilson states he filed his complaints against random township residents anonymously to see if "he got the same respect as Coddington gets"

Attached is the email complaint filed by Wilson where he **identifies** himself to the Township, yet ***still wants the complaints listed as anonymous.***

Page 8.

Wilson makes the statement he has "never threatened anyone in my life"

Yet, there is a Police record of him being interviewed by the Secret Service concerning some statements he had made about the President. (Copy attached)

Page 9.

Wilson makes the claim he was slandered over his military record, "which was all lies".

Wilson has made repeated claims that he has "war ribbons" (expeditionary medals) and seems to mention this to gain favor with the public. A review of Wilson's official Decorations and Awards on his *military records* show **no** such "war ribbons" being issued to Wilson. (Records attached, note* "Battle "E" ribbons are naval training awards) Most would assume this is a stolen valor situation.

Case Details

[Additional Resources](#)**Case ID**

2022-22-1948-SM

Court Location

53rd District Court - Howell

PIN

5016-2022

Case Entitlement

STATE OF MICHIGAN V HAMM

Judge of Record

MURPHY,SHAUNA,

Date Filed

11/09/2022

Case Status

DISPOSED

Next Hearing01/02/2024 1:30 PM - SCHEDULED FOR DEFERRED
SENTENCING**Closed Date**

Hearing Officer - MURPHY,SHAUNA

Due Date

07/18/2023

Balance

Parties (1)

Party Name**Party Type/Number**

DEFENDANT - 1

Age

43 (1979)

Attorney Name

WILLIAM D. MCCRIRIE III

Alternate Name(s)

Charges (1)

Count

1

Offense Date

11/05/2022

Current Charge

DISORDERLY PERSON JOSTLING (7501671L)

Original Charge

ASSAULT AND BATTERY (75081)

Officer/Agency or PetitionerLIVINGSTON COUNTY SHERIFF DEPT. - LIVINGSTON
COUNTY SHERIFF DEPT.**Amended or Reduced**

Reduced

Charge Level

MISDEMEANOR

Attempted, Conspired, Solicited**Arraignment Date**

12/07/2022

Notice**Disposition Date**

07/18/2023

Disposition

DISPOSED ON GUILTY PLEA

Sentencing Date

07/18/2023

License Suspension Clearance Fee Due

Bonds (1)

Bond Type

PERSONAL

Bond Amount

\$500.00

Participant

REPORTING OFFICER NARRATIVE

Livingston County Sheriff's Office

Victim <i>BOAL, TIMOTHY CARL</i>	Offense <i>ASSAULT AND BATTERY</i>	OCA <i>22-05016</i> Date / Time Reported <i>Sat 11/05/2022 12:11</i>
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THE INFORMATION BELOW IS CONFIDENTIAL - FOR USE BY AUTHORIZED PERSONNEL ONLY

ASSAULT AND BATTERY**COMPLAINT NUMBER:**

22-05016

DATE AND TIME:

11-5-22 at 1211 Hrs.

VENUE:

Private roadway in front of 14 Santa Rosa
Howell Township
Livingston County
State of Michigan

INFORMATION:

I was dispatched to the above location for an assault and battery. The caller, Timothy (Tim) Boal, advised that his neighbor assaulted him over a long dispute about a shared private roadway.

CONTACT WITH TIMOTHY AND DANA BOAL:

I arrived at 66 Santa Rosa and spoke with Tim and his wife, Dana Boal.

Tim explained that he has had long dispute with Andrew (Drew) Hamm over the private roadway that he shares with his neighbors.

Over the years Tim and Drew have had disputes over snow plowing, cars parked in the roadway and blight on Drew's property. Tim has filed lawsuits and made complaints with the County Road Commission and Howell Township. Tim won the civil suit and Drew was forced to remove the vehicles from the private roadway.

Drew's property is on the corner of Santa Rosa Dr and Mason Rd. Mason Rd was recently re-surfaced and a small portion of Santa Rosa was paved where it meets Mason Rd. Since the repaving, people have been cutting the corner and driving on the area where Drew's lawn meets Santa Rosa, just north of Mason Rd. Drew had placed reflective posts in the area to prevent people from driving on his property.

Tim stated that where the posts were was still considered the easement of the private roadway. A few days ago, Tim removed the reflective posts and placed them a few feet into Drew's lawn.

Today, Tim and his wife Dana Boal were coming home. Drew was placing more reflective post where his yard meets the roadway. Tim parked his car in the roadway and started to approach Drew. Drew started to yell at Tim and told him "if you value you your life, you should leave". Tim told him he just wanted to talk and maybe help him. Drew came up to Tim in the roadway and "chest bumped" Tim. Drew forced his chest into Tim's chest. Tim was forced backwards two steps. Tim left and called 911.

Dana Boal advised that she was seated in the passenger seat of their vehicle. She observed Drew approach and force

REPORTING OFFICER NARRATIVE

Livingston County Sheriff's Office

Victim BOAL, TIMOTHY CARL	Offense ASSAULT AND BATTERY	OCA 22-05016 Date / Time Reported Sat 11/05/2022 12:11
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THE INFORMATION BELOW IS CONFIDENTIAL - FOR USE BY AUTHORIZED PERSONNEL ONLY

his chest into Tim's chest causing Tim to move back. Tim then walked away.

Tim advised that he was not injured and did not have any marking on his chest. He wanted to press charges on Drew. I gave Tim the complaint number and cleared his home.

CONTACT WITH ANDREW HAMM AND DYLAN HAMM:

I made contact with Drew and Dylan Hamm in the driveway of the above address. Dylan is Drew's 21 year old son.

Drew advised that Tim has been harassing him for years. He has called the Road Commission on him. Drew claimed that Tim joined the Howell Township board just to mess with him.

Drew advised that he is trying to stop people from cutting the corner and driving on his lawn. He placed reflective post in his yard and Tim removed them.

Today he was placing more reflective posts. Tim stopped his vehicle in the roadway and walked toward his property.

Drew told him to go home and he approached him. Drew advised that he got close to Tim, but did not have physical contact with him.

Drew denied having any physical contact with Tim.

Dylan was standing in the area when the incident occurred. Dylan stated that he did not see any physical contact between Drew and Tim.

At the end of Drew's driveway, he has surveillance camera's. Drew advised that the camera's have been cutting in and out for a while and didn't believe the incident was captured on video.

I sent Drew a evidence link to upload the video, if it was captured.

I gave Drew the complaint and cleared the scene.

As of 0900 Hrs on 11-6-22, Drew has not forwarded any video.

STATUS:

Closed, a copy of this report will be forwarded to the Livingston County Prosecutors Office for review.

Charges (1)

Hide

2024.. HomVol58-
53rd District Court

Count

Offense Date

10/16/2024

Current Charge

ZONING VIOLATION - 1ST OFFENSE
(811)

Original Charge

ZONING VIOLATION - 1ST OFFENSE
(811)

Arraignment Date

Disposition Date

03/26/2025

Disposition

FOUND RESPONSIBLE AT HEARING

Officer/Agency or Petitioner

JONATHAN HOHENSTEIN - HOWELL
MUNICIPAL ORDINANCE VIOLATION

Charge Level

CIVIL INFRACTION & PARKING

Amended or Reduced

Attempted, Conspired, Solicited

Notice

Restitution Fees

Jail Sentence

Sentencing Date

03/26/2025

Howell Township Treasurer

From: Bob Wilson [REDACTED]
Sent: Monday, February 10, 2025 3:48 PM
To: Howell Township Assessor; Howell Township Treasurer
Subject: ordinance violations.

Now I see that Howell twp allows anonymous complaints per a previous email in regards to the American legion despite Coddington telling me on social media that they are not..

I would like to make at this time, 2 anonymous complaints.

Chuck Franjenkos still has his camper in his front yard on Bowen rd. Previous complaint made, camper moved and put back where it was. Violation cleared by J hohenstein.

Harold Melton, You have his address, Has 3 junk cars, junk boat , junk camper and at least 80yds of debris scattered in his back yard. You also know his address.

There are many more campers in front yards and businesses in the township that need to be addressed. I will get addresses of these this week.

Keep in Mind, anonymous means anonymous.

Field Contact

CONTACT INFORMATION			
Agency LIVINGSTON COUNTY SHERIFF		Case #	
Contact ID 51258	Date / Time 10/16/2015 11:01	Reason INFO ONLY	
Location 2945 BREWER RD, HOWELL			Tract
Officer DAVIS, J.		Supervisor NAST, M.	

PERSON INFORMATION			
Name Wilson, Robert Kenneth			SSN
Race W	Sex M	DOB [REDACTED]	Age [REDACTED]
DL #/State [REDACTED]			Telephone # [REDACTED]
Address 2945 BREWER RD HOWELL, MI 48855			
Property In Possession			
Weapon In Possession			
Admitted Record			

VEHICLE INFORMATION					
License Plate # / State	Vehicle Type	Vehicle Year 0	Make	Model	Color

PHYSICAL CHARACTERISTICS

REMARKS

Event number
2015156192

I assisted the Secret Service with an interview. Robert made some statements about the president while at the VA hospital while was later reported to the Secret Service.

Interview done and left the area

CRIME ANALYSIS

INFORMATION RELEASABLE UNDER THE FREEDOM OF INFORMATION ACT**NAME:**

ROBERT WILSON

BRANCH OF SERVICE AND SERIAL/SERVICE NUMBER(S):

UNITED STATES NAVY

DATES OF SERVICE:

03-25-1981 THRU 03-24-1985

DUTY STATUS:

DISCHARGED

RANK/GRADE:

ASM3

SALARY:

N/A

SOURCE OF COMMISSION:

N/A

PROMOTION SEQUENCE NUMBER:

N/A

ASSIGNMENTS AND GEOGRAPHICAL LOCATIONS:

SEE ATTACHMENTS

MILITARY EDUCATION:

SEE ATTACHMENT

DECORATIONS AND AWARDS:

NAVY BATTLE "E" RIBON (2) SEA SERVICE DEPLOYMENT RIBON (2)

MERITORIOUS UNIT COMMENDATION GOOD CONDUCT MEDAL

TRANSCRIPT OF COURT-MARTIAL TRIAL:

NOT ON FILE

PHOTOGRAPH:

NOT ON FILE

PLACE OF ENTRY:

ST. LOUIS, MO

PLACE OF SEPARATION:

USS JOHN F. KENNEDY (CV 67) PORTSMOUTH, VA.

FOR DECEASED VETERAN ONLY**PLACE OF BIRTH**

ST. LOUIS, MO

DATE OF DEATH

N/A

LOCATION OF DEATH

N/A

PLACE OF BURIAL

N/A

NOTE: N/A denotes information is not available in the veteran's records

Howell Township Supervisor

From: Linda MacDonald <[REDACTED]>
Date: July 7, 2025 at 8:22:38 PM EDT
To: Howell Township Supervisor <supervisor@howelltownshipmi.org>
Subject: For the record

July 7, 2025

To whom it may concern. I am writing to clarify the situation that Mr. Bob Wilson has presented on social media, which isn't accurate, as it occurred back in early spring. He commented that I am afraid of Tim Boal. I have known Tim for well over 30 years. Our kids grew up together and to this day are still good friends. I am still good friends with Tim and his wife. I also saw that Bob Wilson was saying things like Tim cut our neighbor's trees which he only trimmed them after he talked to the neighbor. The trees were scraping the top of our cars. All the things Bob has said about our neighborhood that goes on is just pure hearsay as he doesn't or ever has lived here. He is taking the word of Shane and Drew as truth. I have tolerated so much of the hatred Shane and Drew have towards Tim. If you have any questions I will be glad to answer them.

Thank you. Linda MacDonald

7A



June 10, 2025

Howell Township
Mike Coddington, Township Supervisor
supervisor@howelltownshipmi.org

Re: Professional Services - Architecture and Engineering

Dear Mike:

It is our pleasure to quote our fees for the professional design and engineering services for the Howell Township Hall located at 3525 Byron Rd, Howell, MI 48855. We have a good deal of experience with similar facilities and can offer you quality professional services within reasonable budgetary considerations.

The basis for this proposal is our understanding of your project as we discussed at our May 20th meeting. Your team is proposing to renovate the existing open space office area and its associated reception and waiting spaces. Design considerations we discussed included: potential for 4 offices, 6 workstations, acoustic improvements in the open office area, storage of larger format files, new systems furniture, "permanent" ½-wall cubicles, etc. Some other primary items your team brought up were the location of the reception window, an additional conference room, views to the rear employee entrance, modifying the ceiling and its clerestory windows, and relocating the reception room.

Given your above-mentioned objectives, and the provided space plan diagram, we are pleased to offer you the following service proposal to assist you in your efforts:

PROPOSED PROFESSIONAL SERVICES

Schematic Design Phase:

- We will input the existing pdf drawings into our CAD system.
- We will visit the building and field measure and confirm existing conditions as required.
- We will sketch plan options we discussed.
- We'll meet with you to review the design concepts, select one option & make adjustments as requested.

Design Development Phase: After your approval of the schematic design work, we will continue the design process by:

- Developing the selected concept for mechanical, electrical and plumbing (MEP) criteria drawings. MEP permit drawings will be provided design/build by the contractor.
- Create a 3 dimensional model of the renovation spaces showing general finishes.
- We will present your project to the Planning Commission, attend all meetings, and represent you at those meetings.

Construction Document Phase: During the construction document phase we will:

- Finalize the MEP criteria drawings and details.
- Final bid & permit architectural drawings, details, and specifications.
- A project manual will be produced which outlines the general conditions of the construction project, gives instructions to the bidders, and assigns responsibilities regarding insurance, scheduling, safety, and quality issues.

Bidding Phase: We will coordinate the bidding process by:

- Distributing bid sets.
- Answering all questions regarding the documents.
- Issuing all required addenda.
- Assisting you in preparing a contract for construction with the selected general contractor.

Our Mission

Integrity

in architecture and design
in client relationships
in employee relationships
in community relationships

advancement

in all these efforts

Construction Phase: During construction of the project, we will:

- Make regular site visits to observe the progress.
- Assist the contractors in interpretation of the documents and in unforeseen field conditions.
- Produce a complete color schedule for the interior finishes.
- Review shop drawings and submittals from the sub-contractors.
- On a monthly basis, review and process the contractor's application for payment.

PROPOSED FEE

Our standard fee for this type of project is about 7% of the construction costs incurred by our documents. We anticipate the cost of construction to be about \$125 per square foot, conservatively. **Therefore, a lump sum fee of \$21,875 will be earned.**

The fee will be broken down into the following allocation:

Schematic Design Phase	15%	\$3,281.00
Design Development Phase	20%	\$4,375.00
Construction Documents Phase	40%	\$8,750.00
Bidding Administration Phase	5%	\$1,094.00
Construction Administration Phase	20%	\$4,375.00

Any work beyond the scope described above will be billed at our hourly rates listed below.

Our hourly rates are as follows:

CEO / President	\$176.00 per hour
Partner	\$149.00 per hour
Principal	\$139.00 per hour
Project Manager	\$128.00 per hour
Senior Project Architect	\$116.00 per hour
Project Architect	\$107.00 per hour
Planner / Designer	\$107.00 per hour
Intern Architect III	\$103.00 per hour
Intern Architect II	\$92.00 per hour
Intern Architect I	\$79.00 per hour
Sr. Staff	\$63.00 per hour

All work will be performed on our CADD system with complete specifications. We expect the project to be contracted in a manner consistent with AIA standard documents and will assist you in preparing those documents during bidding and construction. Our fees do not include, models, print charges for bidding and construction documents, review fees, or any other service not mentioned as such. Significant changes to previously approved designs will be charged at our standard hourly rates and may affect total costs adversely.

Please note that our practice of architecture does not include any expertise or control over environmentally hazardous materials in your existing building or on your site. Our service proposal does not include any analysis or abatement work of any kind. If we are made aware of any such situation, we will notify you and assist you in seeking professional advice for the given situation.



TERMS AND CONDITIONS

This proposed agreement is subject to the Terms and Conditions as defined on pages 4 - 5 of this agreement.

We appreciate this chance to build with you. Please let us know if there is any clarification we can make to this proposal. If it is acceptable, please sign below and return it to our office.

Respectfully Submitted,



D. Jason McIntyre, Architect, Partner
Lindhout Associates architects aia pc



John Eckstein, President
Lindhout Associates architects aia pc

Approval to Proceed:

Mike Coddington

Date



TERMS AND CONDITIONS

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Access To Site:

Unless otherwise stated, Lindhout Associates will have access to the site for activities necessary for the performance of the services. Lindhout Associates will take precautions to minimize damage due to these activities but has not included in the fee the cost of restoration of any resulting damage.

Project Information: Lindhout Associates shall be entitled to rely on the accuracy and completeness of services and information furnished by the Client, including services and information provided by other design professionals or consultants directly to the Client. These services and information include, but are not limited to, surveys, tests, reports, diagrams, drawings, and legal information.

Dispute Resolution: Any claims or disputes made during design, construction or post-construction between Client and Lindhout Associates that cannot be resolved by dialog and negotiation shall be submitted to non-binding mediation. Client and Lindhout Associates agree to include a similar mediation agreement with all contractors, sub-consultants, suppliers, and fabricators, thereby providing for mediation as the primary method for dispute resolution between all parties. The mediation shall be governed by the then current Construction Industry Mediation Rules of the American Arbitration Association ("AAA"). Mediation shall be a condition precedent to the initiation of any other dispute resolution process, including court actions.

Billings/Payments: Invoices for Lindhout Associates services shall be submitted, at Lindhout Associates' option, either upon completion of such services or on a monthly basis. Invoices are not contingent upon interim or final financing nor tenant or governmental approvals and shall be payable within 30 days after the invoice date. If the invoice is not paid within 30 days, Lindhout Associates may, without waiving any claim or right against the Client, and without liability whatsoever to the Client, terminate the performance of the service and retain all work completed. Retainers shall be credited on the final invoice.

Late Payments: Accounts unpaid 60 days after the invoice date may be subject to a monthly service charge of 1.5% on the then unpaid balance. In the event any portion or all of an account remains unpaid 90 days after billing, the Client shall pay all costs of collection, including reasonable attorney's fees.

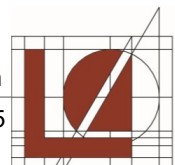
Indemnification: Lindhout Associates agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Client, its officers, directors, and employees (collectively, Client) against all damages, liabilities, or costs, including reasonable attorneys' fees and defense costs, to the extent caused by Lindhout Associates' negligent performance of professional services under this Agreement and that of its subconsultants or anyone for whom Lindhout Associates is legally liable.

The Client agrees, to the fullest extent permitted by law, to indemnify and hold harmless Lindhout Associates, its officers, directors, employees and subconsultants (collectively, Lindhout Associates) against all damages, liabilities, or costs, including reasonable attorneys' fees and defense costs, to the extent caused by the Client's negligent acts in connection with the Project and the acts of its contractors, subcontractors or consultants or anyone for whom the Client is legally liable.

Certifications, Guarantees and Warranties: Lindhout Associates shall not be required to execute any document that would result in their certifying, guaranteeing, or warranting the existence of conditions whose existence Lindhout Associates cannot ascertain.

Termination or Suspension: If the Client fails to make payments to Lindhout Associates in accordance with this Agreement, such failure shall be considered substantial nonperformance and cause for termination or, at Lindhout Associates' option, cause for suspension of performance of services under this Agreement. If Lindhout Associates elects to suspend services, prior to suspension of services, Lindhout Associates shall give seven days written notice to the Client. In the event of suspension of services, Lindhout Associates shall have no liability to the Client for delay or damage caused the Client because of such suspension of services. Before resuming services, Lindhout Associates shall be paid all sums due prior to suspension and any expenses incurred in the interruption and resumption of Lindhout Associates's services. Lindhout Associates's fees for the remaining services and the time schedules shall be equitably adjusted.

Ownership of Documents: All documents produced by Lindhout Associates under this agreement shall remain the property of Lindhout Associates and may not be used by Client, or any other party, for any other endeavor without the prior written consent of Lindhout Associates.



Contractor Submittals: Lindhout Associates shall review the contractor's submittals such as shop drawings, product data and samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the plan and specifications issued by Lindhout Associates. Review of such submittals is not for the purpose of determining the accuracy and completeness of other information such as dimensions, quantities, and installation or performance of equipment or systems, which are the contractor's responsibility. Lindhout Associates's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by Lindhout Associates, of any construction means, methods, techniques, sequences, or procedures. Lindhout Associates's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

Waiver of Subrogation: Lindhout Associates and Client waive all rights against each other and any of their contractors, subcontractors, consultants, agents, and employees, each of the other, for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to a written contract or other property insurance applicable to the construction work. Lindhout Associates and Client, as appropriate, shall require of their contractors, subcontractors, consultants, agents, and employees, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policy shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

Standard of Care: Lindhout Associates shall perform its services consistent with the professional skill and care ordinarily provided by Lindhout Associates's practicing in the same or similar circumstances. Lindhout Associates shall perform its services as expeditiously as is consistent with such professional skill and care and the orderly progress of the project.

Responsibility for Construction: Evaluations of the Client's project budget, the preliminary estimate of construction cost and detailed estimates of construction cost, if any, prepared by Lindhout Associates, represent Lindhout Associates's judgment as a design professional familiar with the construction industry. It is recognized, however, that neither Lindhout Associates nor the Client has control over the cost of labor, materials, or equipment, over the contractor's methods of determining bid prices, or over competitive bidding, market or negotiating conditions. Accordingly, Lindhout Associates cannot and does not warrant or represent that bids or negotiated prices will not vary from the Client's project budget or from any estimate of construction cost or evaluation prepared or agreed to by Lindhout Associates.

Job Site Safety: Neither the performance of the services by the A/E, nor the presence of Lindhout Associates at a project construction site, shall impose any duty on Lindhout Associates, nor relieve the construction contractor of its obligations, duties and responsibilities including, but not limited to, construction means, methods, sequence, techniques or procedures necessary for performing, superintending and coordinating the construction work in accordance with the plans and specifications and any health or safety precautions required by any regulatory agencies or applicable law. Lindhout Associates and its personnel have no authority to exercise any control over any construction contractor or its employees in connection with their work or any health or safety programs or procedures. The Client agrees that the construction contractor shall be solely responsible for jobsite and worker safety.

Use of Innovative Design and Technologies:

The Client understands and agrees that state-of-the-art or innovative products, technologies or methods may be used on the Project and that these lack a proven history of successful application and performance. The Client acknowledges that these technologies are being incorporated into the Project to accomplish recognized objectives and, due to their unproven and innovative nature, there is a significant possibility that those objectives may not be realized and may result in undesirable consequences. Lindhout Associates will conduct a reasonable level of investigation and analysis, and this is the limitation of Lindhout Associates' obligation for the performance of these technologies. The Client has weighed the relative risks and rewards and accepts the risk of incorporating the innovation(s) into the project.

Limitation of Liability: In recognition of the relative risks and benefits of the Project to both the Client and Lindhout Associates, the risks have been allocated such that the Client agrees, to the fullest extent permitted by law, to limit the liability of Lindhout Associates and Lindhout Associates' officers, directors, partners, employees, shareholders, owners and subconsultants for any and all claims, losses, costs, damages of any nature whatsoever or claims expenses from any cause or causes, including attorneys' fees and costs and expert-witness fees and costs, so that the total aggregate liability of Lindhout Associates and Lindhout Associates' officers, directors, partners, employees, shareholders, owners and subconsultants shall not exceed Lindhout Associates total fee for services rendered on this Project. It is intended that this limitation apply to any and all liability or cause of action however alleged or arising, unless otherwise prohibited by law.





June 10, 2025

Howell Township
Mike Coddington, Township Supervisor
supervisor@howelltownshipmi.org

Re: Professional Services – Architecture, Pre-Design, and Feasibility

Dear Mike:

It is our pleasure to quote our costs for professional design, feasibility, and planning services for Howell Township's potential new Community Center Building and Site located at the intersection of Tooley and Warner Roads in Howell Township. We have a good deal of experience with similar projects and can offer you quality professional services within reasonable budgetary considerations.

The basis for this proposal is our understanding of your project as we discussed at our May 20th meeting. The Township is proposing to construct a new community center for the Township. The footprint will be similar to Oceola Township's community center, only a single story, and approximately 29,000 sqft. A feasibility study is required for the new site. The study would include preliminary site plan diagram options showing walking paths, sports fields/courts, location of the new building footprint, parking, storm basin, among other items.

We are pleased to offer you the following service proposal to assist you in your efforts:

PROPOSED PROFESSIONAL SERVICES

Concept Design Phase:

- We will input the existing site information from GIS and/or your planner/civil consultant (Spicer Group).
- We will layout a preliminary community center footprint on the site.
- Preliminary parking and drives will be provided.
- General site egress, parking storm basins, playground area(s) and athletic fields will be shown as well.
- We will meet with you to review the designs and adjust as requested.
- After your approval of a selected concept sketch, we can assist with getting a budget estimate from a pre-selected general contractor or construction manager for your use in the financial review of the project.

Schematic Design Phase: FUTURE PROPOSAL

Design Development Phase: FUTURE PROPOSAL

Construction Document Phase: FUTURE PROPOSAL

Bidding Phase: FUTURE PROPOSAL

Construction Phase: FUTURE PROPOSAL

Our Mission

Integrity

in architecture and design
in client relationships
in employee relationships
in community relationships

advancement

in all these efforts

PROPOSED FEE

Because scope and the project is currently in a conceptual stage, we propose working on an hourly, not to exceed, basis.

Our hourly rates are as follows:

CEO / President	\$176.00 per hour
Partner	\$149.00 per hour
Principal	\$139.00 per hour
Project Manager	\$128.00 per hour
Senior Project Architect	\$116.00 per hour
Project Architect	\$107.00 per hour
Planner / Designer	\$107.00 per hour
Intern Architect III	\$103.00 per hour
Intern Architect II	\$92.00 per hour
Intern Architect I	\$79.00 per hour
Sr. Staff	\$63.00 per hour

At this time, we expect the project will take approximately 40 hours to complete. At an average rate of \$122.00 per hour, a fee of \$5,000.00 is expected. We will setup the project as hourly-not-to-exceed and will only bill those hours worked. As all time saved will be money saved by you and we will not bill beyond the estimated hours without your approval.

This proposed agreement is subject to the Terms and Conditions as defined on pages 3 and 4 of this agreement.

We appreciate this chance to build with you. Please let us know if there is any clarification we can make to this proposal. If it is acceptable, please sign below and return it to our office.

Respectfully Submitted,



D. Jason McIntyre, Architect, Partner
Lindhout Associates architects aia pc



John Eckstein, President
Lindhout Associates architects aia pc

Approval to Proceed:

Mike Coddington

Date



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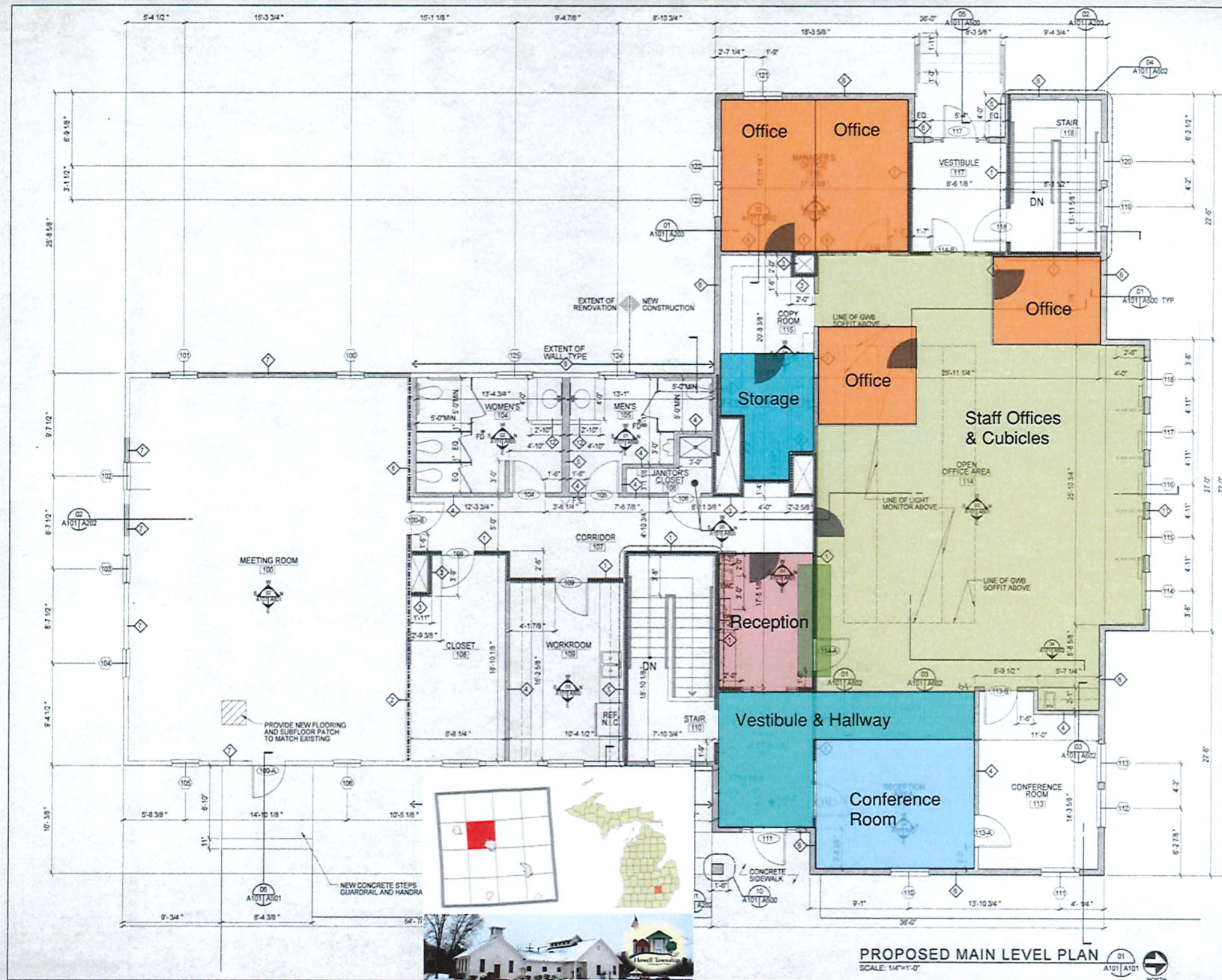


Waiver of Subrogation: Lindhout Associates and Client waive all rights against each other and any of their contractors, subcontractors, consultants, agents, and employees, each of the other, for damages caused by fire or other causes of loss to the extent covered by property insurance obtained pursuant to a written contract or other property insurance applicable to the construction work. Lindhout Associates and Client, as appropriate, shall require of their contractors, subcontractors, consultants, agents, and employees, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policy shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.

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Howell Township: Prospective Projects
 Howell Township, Michigan
 Feasibility Study for Planning Purposes
 April 8, 2025



Description	Low - Mid Level Cost Range	
Renovation & Small Addition to Hall - Historical Database Extrapolation:		
Interior Renovation - Assumes +/- 4,500 SF	\$	193,500 - \$ 270,000
1,500 SF to 2,000 SF Addition		750,000 - 1,000,000
Commercial Style Kitchen Allowance		75,000 125,000
Façade Enhancement Allowance (If Necessary)		19,500 - 97,500
Security Upgrade Allowance		25,000 - 75,000
Subtotal Cost:	\$	1,063,000 - \$ 1,567,500
Future Inflation & Design / Planning Contingency - 10%:		106,300 - 156,650
Suggest Range for Planning:	\$	1,169,300 - \$ 1,724,150

Description	Low - Mid Level Cost Range	
<i>New Build to Suit Facility:</i>		
Community Center Concept - Approximately 44,000 SF:	\$ 6,380,000	\$ 6,996,000

Key Notes:

Cost have been provided for planning purposes & will be reconciled upon completion of design & scope of work.
 Fixtures, Furniture, Equipment & Low Voltage Systems are assumed to be by owner.

This Schafer Construction Planning Summary has been created from over 28-years of historical data, current commodity rates, and regional labor costs.

This Planning Summary is proprietary information and is the property of Schafer Construction and our Clients.

From: Jared Runyan
Sent: Wednesday, April 2, 2025 11:07 AM
To: Howell Township Administration
Subject: Re: Thank you!

Hello Marnie,

You are very welcome.

Putting some rough numbers together I am coming in at \$193,398. I did not include any fire alarm work, fire suppression, or architectural drawings we will need, that cost would be in addition to this figure.

I figured demo, all new glue down Nylon carpet squares, fully updating both bathrooms. Framing, drywall and electrical for new offices/rooms. All new base trim, painting the walls, ceiling, new base trim, and the 8 doors and jambs we discussed. I also included \$10K for the bullet proof front desk/counter. Plumbing fixtures I have \$4K and the flooring allowance is \$26,565. You can get a polyester carpet but it will wear faster than the nylon, the difference is about \$1.50/Sq'

Until we have a set of plans with a definitive scope for the project it is tough to put an accurate number together, but I am fairly confident we will be right around the \$200K mark.

Thank you for the opportunity to bid this project, let me know if you have any questions.
Have a great day.

Sincerely,

Jared Runyan
Office Manager/Project Coordinator



809 E. Grand River Ave. Suite C. Howell, MI 48843
Office: 517-546-9570

www.runyanbroconstruction.com

7B

**STATE OF MICHIGAN
IN THE 44th CIRCUIT COURT FOR THE COUNTY OF LIVINGSTON**

HOWELL TOWNSHIP,

Plaintiff/Appellant,

Circuit Court Case No. 25-398-AV

v

District Court Case No. HOMV0158 ON

SHANE RAY FAGAN,

HON. L. SUZANNE GEDDIS

Defendant/Appellee.

Christopher S. Patterson (P74350)
David J. Szymanski (P86525)
Fahey Schultz Burzych Rhodes PLC
Attorneys for Plaintiff/Appellant
4151 Okemos Road
Okemos, Michigan 48864
(517) 381-0100
cpatterson@fsbrlaw.com
dszymanski@fsbrlaw.com

Shane Ray Fagan
In pro per
30 Santa Rosa Drive
Howell, MI 48843

APPELLANT HOWELL TOWNSHIP'S BRIEF ON APPEAL

ORAL ARGUMENT REQUESTED

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JURISDICTIONAL STATEMENT

A judgment was entered by the 53rd District Court for the County of Livingston on March 26, 2025, in case number HOMV0158-ON. The judgment was a final order disposing of all claims in a civil infraction proceeding held under MCL 600.8701 *et seq.* Howell Township filed a claim of appeal with this Court on April 15, 2025. This Court has jurisdiction over the Township's appeal pursuant to MCR 7.103(A)(1) and MCL 600.8342. Crucially, Defendant Shane Fagan did not file a cross appeal, which divests this Court of jurisdiction to alter the judgment of the District Court based on any allegations of error raised through a responsive brief. MCR 7.106 (explaining the strict requirements for a cross appeal); *Barnell v Taubman Co*, 203 Mich App 110, 123 (1993) ("Defendant's failure to cross appeal precludes our review of this issue."); *McCardel v Smolen*, 404 Mich 89, 94-95; 273 NW2d 3 (1978); *Pontiac Twp v Featherstone*, 319 Mich 382, 390; 29 NW2d 898 (1947).

STATEMENT OF QUESTIONS INVOLVED

The District Court reached the correct result—finding Mr. Fagan responsible for violating the Howell Township Zoning Ordinance—but made three fundamental legal errors that effectively rewrote key provisions of the Township’s carefully crafted regulatory framework. These errors created unwarranted exceptions to clear ordinance language and undermined the comprehensive zoning standards the Township Board enacted to protect residential neighborhoods from incompatible commercial uses. The following questions are presented through this appeal:

- I. Whether the District Court erred as a matter of law in holding that Mr. Fagan’s commercial speed shop operation constituted a permissible “home occupation” despite finding that it violated multiple elements of the definitional requirements because doing so effectively rewrites the zoning regulations?

Howell Township Answers: Yes.

Shane Fagan Will Answer: No.

- II. Whether the District Court erred as a matter of law in holding that Mr. Fagan’s 504-square-foot garage operation did not violate Section 14.19(B)’s floor area limitation when mathematical evidence established his accessory structure represented 35% of the principal structure’s gross floor area—plainly exceeding the ordinance’s strict 25% limitation?

Howell Township Answers: Yes.

Shane Fagan Will Answer: No.

- III. Whether the District Court erred as a matter of law in holding that Section 18.03’s off-street loading requirements do not apply to “home occupations” when the ordinance’s plain language requires all land uses that “customarily receive or distribute material or merchandise” by vehicle to provide loading plans, with exemptions only for “dwelling unit structures” used for residential purposes?

Howell Township Answers: Yes.

Shane Fagan Will Answer: No.

INTRODUCTION¹

Zoning is a legislative function that regulates land use through the systematic division of a municipality into districts with specified land uses, dimensional requirements, and regulatory standards designed to promote public health, safety, and welfare while preserving community character. This exhaustive legislative process requires elected municipal officials to balance competing interests, consider comprehensive planning principles, and make policy judgments about appropriate land uses within their communities. Once enacted through the proper legislative process, zoning ordinances establish binding legal requirements that property owners must follow.

Courts play a critical but limited role in the zoning process. While courts possess authority to interpret zoning ordinances and determine whether they have been properly applied to specific facts, they cannot substitute their judgment for legislative policy determinations or rewrite ordinance provisions under the guise of interpretation. As the Michigan Supreme Court has repeatedly emphasized, courts “do not sit as a superzoning commission” that can undo the policy enacted by elected representatives of a local community. *Brae Burn, Inc v City of Bloomfield Hills*, 350 Mich 425, 430-431; 86 NW2d 166 (1957); see also *Schwartz v City of Flint*, 426 Mich 295; 395 NW2d 678 (1986). When courts exceed this limited role and begin making substantive zoning determinations, they improperly usurp legislative authority in violation of the separation of powers doctrine. *Schwartz*, 426 Mich at 305-308.

¹ The complete record of proceedings has been filed contemporaneously with this brief for the Court's convenience and includes all exhibits admitted into evidence and documents properly judicially noticed during the formal hearing. The judicially noticed documents include the relevant provisions of Howell Township's Zoning Ordinance, which the District Court properly took judicial notice of pursuant to MRE 202. To the extent this Court needs to reference the Zoning Ordinance, it is publicly available online on the Township's website: <https://www.howelltownshipmi.org/departments/zoning/forms-and-applications>

Against this backdrop, Howell Township has carefully enacted comprehensive zoning standards that permit limited “home occupations” within the residential areas of its community. These standards reflect the Township Board’s legislative determination to balance commercial opportunities for residents with the preservation of residential neighborhood character. The Township’s Zoning Ordinance establishes a detailed definitional framework and nine specific regulatory requirements that any proposed “home occupation” must satisfy before it can be deemed permissible within residential districts (in addition to any other applicable requirements for commercial land uses).

In this case, a neighbor of Defendant Shane Fagan asked the Township whether a commercial speed shop could be operated in a residential garage, and the neighbor specifically expressed concerns related to noise and frequent semi-truck deliveries. A speed shop is an automotive fabrication and repair business that specializes in modifying vehicles for racing and performance enhancement, typically involving heavy machinery for metal cutting, welding, grinding, and engine modification work, along with the fabrication of custom automotive parts and chassis components. The Township thoroughly investigated the matter and determined Mr. Fagan was operating the “Speakeasy Speed Shop, LLC” from his residential garage. The Township then determined that Mr. Fagan’s speed shop violated multiple aspects of its Zoning Ordinance and did not qualify as a permissible “home occupation.” The Township issued warning letters in July and September 2024 seeking voluntary compliance, and when Mr. Fagan continued operating his business, the Township issued a municipal civil infraction citation in October 2024 alleging violations of the “home occupation” definition, restrictions applicable to “home occupations,” and off-street loading requirements.

The District Court conducted formal hearings over three sessions in January, February, and March 2025, ultimately finding Mr. Fagan responsible for violating the Township’s Zoning Ordinance. However, in reaching this correct conclusion, the District Court made several fundamental legal errors that effectively rewrote key provisions of the Township’s carefully crafted regulatory framework. Specifically, the District Court held that Mr. Fagan’s commercial speed shop constituted a permissible “home occupation” despite finding that it caused “unreasonable noise that did affect the welfare of the neighbors”—a finding that directly contradicts the definition’s prohibition on activities that “endanger the health, safety, and welfare” of neighboring residents. The Court further held that a 504-square-foot garage operation did not violate the 25% floor area limitation despite mathematical evidence showing it represented 35% of the principal structure’s gross floor area. Finally, the Court exempted “home occupations” from off-street loading requirements despite the Zoning Ordinance’s plain language requiring such facilities for all uses that “customarily receive or distribute material or merchandise” by vehicle. Through these interpretative errors, the District Court essentially acted as a superzoning commission rewriting the zoning regulations in violation of established separation of powers principles espoused in *Brae Burn* and *Schwartz* by the Michigan Supreme Court.

The Township appeals despite obtaining a favorable ruling because the District Court’s erroneous legal interpretations have significant implications. These errors effectively rewrite the Township’s Zoning Ordinance without following the proper legislative process, creating uncertainty for future zoning enforcement and undermining the comprehensive regulatory framework the Township Board enacted to protect residential neighborhoods from incompatible commercial uses.

The Township seeks a narrow opinion from this Court clarifying that District Courts cannot act as superzoning commissions by rewriting ordinance provisions through a formal hearing under the guise of interpretation. Specifically, the Township requests reversal of the District Court’s erroneous holdings regarding: (1) the definition of “home occupation” and its prohibitions on activities that are not customarily conducted entirely within dwellings and activities that endanger neighbor welfare through noise; (2) the mathematical application of Section 14.19(B)’s 25% floor area limitation; and (3) the applicability of Section 18.03’s off-street loading requirements to “home occupations” that customarily receive commercial deliveries by vehicle. Such a ruling would restore the proper separation of powers between legislative policy-making and judicial interpretation while ensuring consistent enforcement of the Township’s carefully crafted zoning standards.

STATEMENT OF FACTS

I. Howell Township’s Zoning Ordinance establishes a clear regulatory framework for “home occupations” in residential areas.

Howell Township employs a Euclidean form of zoning that divides the Township into multiple zoning districts, each with specified permitted uses. There is no dispute that Mr. Fagan’s property is located in the Single-Family Residential (“SFR”) District. Zoning Ordinance § 6.01. The SFR District permits three categories of land uses: (1) permitted principal uses, (2) permitted principal special uses with conditions, and (3) permitted accessory uses. Zoning Ordinance §§ 6.02-6.04. Under Michigan’s permissive zoning framework, uses not specifically permitted within a zoning district are prohibited. *Jostock v Mayfield Twp*, 15 NW3d 552, 559 (2024). There is no

dispute that the activity at issue does not fall within a specified principal land use permitted in the SFR District.²

The Zoning Ordinance does allow permissible “home occupations” to be conducted in all residences. Zoning Ordinance § 14.19 (“Home occupations shall be permitted in all residences in all districts”). The Zoning Ordinance defines “Home Occupation” in Article II, Section 2.02 as follows:

Any use customarily conducted entirely within the dwelling and carried on by the inhabitants thereof, not involving employees other than members of the immediate family residing on the premises, which use is clearly incidental and secondary to the use of the dwelling for dwelling purposes, does not change the character thereof, and which does not endanger the health, safety, and welfare of any other persons residing in that area by reasons of noise, noxious odors, unsanitary or unsightly conditions, fire hazards and the like, involved in or resulting from such occupation, professions or hobby. Providing further, that no article or service is sold or offered for sale on the premises, except as such as is produced by such occupation; that such occupation shall not require internal or external alterations of construction features, equipment, machinery, outdoor storage, or signs not customarily in residential areas.

If the activity and use conducted by the owner meets the definition of a “home occupation,” it must further be conducted in conformation with specific requirements found in Section 14.19 of the Zoning Ordinance:

A. The nonresidential use shall be only incidental to the primary residential use.

² To be absolutely clear, Mr. Fagan himself characterized his activities as a “home occupation” throughout the formal hearing process. See January 13, 2025, Hearing Transcript, p. 8 (“Everything we understood about the Howell Township zoning ordinance provided that we did not need to take additional steps to seek any sort of zoning change or conditional use. It is our understanding that we were well within the restraints of the at-home occupation”). Mr. Fagan also testified that he engaged in recreational metal fabrication on his property separate from his commercial operations, and the Township takes no issue with Mr. Fagan’s recreational metal fabrication on his property through these proceedings.

B. The occupation shall utilize no more than twenty-five (25) percent of the ground floor area of the principal structure or an accessory structure not to exceed twenty-five (25) percent of the gross floor area of the principal structure.³

C. Only normal domestic or household equipment and equipment characteristic of small workshops, businesses and professional office shall be used to accommodate the home occupation.

D. The home occupation shall involve no employees other than members of the immediate family residing on the premises except one non-resident employee shall be permitted per dwelling unit.

E. All activities shall be carried on indoors. No outdoor activities or storage shall be permitted.

F. No alterations, additions, or changes to a principal or accessory structure which will change the residential character of the dwelling structure shall be permitted in order to accommodate or facilitate a home occupation.

G. There shall be no external evidence of such occupations except a small announcement sign not to exceed two (2) square feet in area and attached to the principal or accessory structure.

H. The permission for home occupations as provided herein is intended to secure flexibility in the application of the requirements of this Ordinance; but such permission is not intended to allow the essential residential character of Residential Districts, in terms of use and appearance, to be changed by the occurrence of home occupations.

I. Garage sales, rummage sales, yard sales and similar activities may be conducted for no longer than three (3) days and no more than twice per calendar year on the same property.

However, there are additional requirements in Section 18.03 of the Zoning Ordinance for land uses (such as “home occupations”) that “customarily receive or distribute” material by vehicles, beginning with the following generally applicable provision:

³ As explained in detailed below, Mr. Fagan was using an accessory structure for his home occupation that exceeded 25% of the gross floor area of the principle structure, which is relevantly defined as follows: “The sum of the gross horizontal areas of the several floors of the building measured from the exterior face of the exterior walls” but explicitly excludes “[a]reas of dwelling basements, unfinished attics, utility rooms, breeze-ways, porches (enclosed or unenclosed) or attached garages.” Zoning Ordinance § 2.02.

In connection with every use, except single family, two family and multiple family dwelling unit structures, there shall be provided on the same lot with such buildings, off-street loading and unloading spaces for permitted or special uses which customarily receive or distribute material or merchandise or provide services by vehicle as follows...

The Zoning Ordinance mandates advance planning and approval for loading facilities and addresses land uses (like “home occupations”) that are not explicitly addressed:

Plans and specifications showing required loading and unloading spaces, including the means of ingress and egress and interior circulation, shall be submitted to the Zoning Administrator for review at the time of application for a Zoning Permit for the establishment or enlargement of a use of land, building or structure.

...

If a use is not specifically listed, the requirements of a similar or related use shall apply, as determined by the Planning Commission.

These off-street loading and unloading requirements are generally applicable to all land uses except for those explicitly exempted. Zoning Ordinance § 18.03.

Collectively, an activity/use within a residential structure is permitted as a “home occupation” when it meets the requirements in Section 2.02, adheres to all requirements in Section 14.19, and has appropriate approval for loading facilities if required by Section 18.03. In application, the Zoning Ordinance reflects a carefully crafted legislative framework that permits “home occupations” while establishing reasonable conditions designed to ensure compatibility with surrounding residential uses.

II. The Township investigates Mr. Fagan’s commercial speed shop operations following a neighbor complaint and determines it violates the zoning regulations.

On June 18, 2024, the Township received an email from Linda McDonald, a neighbor of Mr. Fagan, inquiring whether “a speed shop is allowed in their area.” Plaintiff’s Exhibit 8. The complaint specifically referenced concerns about constant “drilling and hammering” and deliveries

of steel from a “semi truck.” occurring at Mr. Fagan’s property at 30 Santa Rosa Drive. Plaintiff’s Exhibit 8.

Zoning Administrator Jonathan Hohenstein conducted an initial investigation following receipt of the email. February 12, 2025, Hearing Transcript, p. 11. As part of this investigation, Mr. Hohenstein reviewed publicly available information about Mr. Fagan’s business operations, including the registered LLC “Speakeasy Speed Shop” listed at Mr. Fagan’s residential address and the business website at SpeakeasySpeedShop.com.⁴ February 12, 2025, Hearing Transcript, at pp. 11-12; Plaintiff’s Exhibit 1.

Due to the unique nature of the complaint and because Mr. Fagan was running for Township Trustee at the time,⁵ Mr. Hohenstein consulted with the Township’s planning expert, Paul Montagno, to ensure an objective evaluation of the zoning compliance issues. February 12, 2025, Hearing Transcript, p. 12-13; Plaintiff’s Exhibit 4. In his email response dated July 1, 2024, Mr. Montagno concluded: “No, this use is not permitted in the SFR district. Manufacturing is permitted in the Industrial and Industrial Flex zoning districts, subject site plan approval and compliance with performance standards for noise smoke vibration etc.” Plaintiff’s Exhibit 4. Mr. Montagno further noted that “[i]f this were just a hobby, it could be considered accessory to the residential use, but it appears that this is a commercial activity and therefore cannot be permitted in a residential district.” Plaintiff’s Exhibit 4.

⁴ During the hearing, Mr. Fagan noted that the Speakeasy Speed Shop, LLC, was registered to his wife, Leanne Fagan, rather than himself. February 12, 2025, Hearing Transcript p. 45. This distinction is immaterial to the zoning violation. The undisputed evidence established that Mr. Fagan operated the speed shop at his residential property regardless of the LLC’s formal ownership structure. Moreover, the Zoning Ordinance imposes liability on property owners and those in control of land use. Zoning Ordinance § 21.06. As the property owner who admittedly operated the commercial speed shop in his garage, Mr. Fagan bears responsibility for the zoning violations irrespective of the formal structure of the Speakeasy Speed Shop, LLC.

⁵ Mr. Fagan was elected and is a member of the Howell Township Board.

On July 2, 2024, Mr. Hohenstein sent Mr. Fagan a violation notice letter. Plaintiff's Exhibit 5. The letter informed Mr. Fagan that it had "been brought to the Township's attention that you are operating a business out of your garage at 30 Santa Rosa Drive." Plaintiff's Exhibit 5. The letter specifically referenced the Township's investigation, which included "viewing your webpage for Speakeasy Speed Shop, YouTube videos that you have posted online, and videos of multiple semi-trucks making deliveries to your property." Plaintiff's Exhibit 5. The letter concluded that "this use is not permitted in the Single Family Residential zoning district" and that "[t]his unpermitted use needs to stop immediately." Plaintiff's Exhibit 5. Despite the initial warning letter, Mr. Fagan's business operations continued. Mr. Hohenstein conducted additional site visits and continued monitoring Mr. Fagan's website and YouTube videos, confirming that commercial use was continuing at the residential location.

On September 11, 2024, Mr. Hohenstein sent a final violation notice to Mr. Fagan. Plaintiff's Exhibit 6. This letter noted that "[a] violation notice letter was sent to you on July 2, 2024" and that "[t]he Township has received no communication from you regarding that letter." Plaintiff's Exhibit 6. The letter further stated that "[i]t is obvious that you have not ceased operation of the business" and noted that Mr. Fagan had "openly admitted to operating your industrial business out of your house in two meetings open to the public." Plaintiff's Exhibit 6.

Following the September 11, 2024 violation notice, Mr. Fagan submitted a written response to Mr. Hohenstein. Plaintiff's Exhibit 7. In this response, Mr. Fagan disputed the Township's determination and argued that his operation qualified as a permissible "home occupation" under Section 14.19 of the Zoning Ordinance. Plaintiff's Exhibit 7. Subsequently, Mr. Fagan requested that the Township Board modify the home occupation portion of the Zoning Ordinance to explicitly allow his use in the SFR District. Defendant's Exhibit F. On November 4, 2024, the

Township Board voted to send Mr. Fagan's ordinance modification request to the Planning Commission for review. Defendant's Exhibit H. However, there have been no changes to the Zoning Ordinance that would permit Mr. Fagan's use.

On October 17, 2024, Mr. Hohenstein personally served the citation on Mr. Fagan for violating Article 6 (Single-Family Residential District Regulations), Section 14.19 (Home Occupation Standards), and Section 18.03 (Off-Street Loading and Unloading Requirements) of the Zoning Ordinance. During service of the citation, Mr. Hohenstein was invited by Mr. Fagan to inspect the garage where he was able to confirm that a speed shop was operational and confirmed the equipment and setup matched what he previously had viewed on Mr. Fagan's website and YouTube videos. Transcript on February 12, 2025, p 15-18. Some of those pictures are as follows as depicted in Plaintiff's Exhibit 1:





III. Mr. Fagan’s testimony and admissions during the formal hearing confirm the commercial scale and nature of his speed shop operation.

Throughout the formal hearing proceedings, Mr. Fagan made numerous admissions that confirmed his operation exceeded the parameters of a permissible “home occupation” under the Township’s Zoning Ordinance (as explained throughout the argument section of this brief):

- Mr. Fagan acknowledged the commercial nature of his operation: “We’ve run our at-home occupation since 2023. We did this in an effort to provide for our family.” January 13, 2025, Hearing Transcript, p. 8. This admission established that the operation was conducted for commercial purposes rather than as a hobby or purely incidental use.
- Mr. Fagan acknowledged conducting business activities outdoors, testifying: “Did you work with the door open at times, Mr. Fagan? Yes, I did. But as we all know, this is Michigan, so there’s a number of months that that door can’t be open.” March 26, 2025, Hearing Transcript, p. 28.
- Mr. Fagan confirmed that Plaintiff’s Exhibit 3 was “an accurate depiction of the house sketch of the primary residence at 30 Santa Rosa Drive,” establishing the official floor plan that demonstrates his 504-square-foot garage operation exceeded Section 14.19(B)’s 25% floor area limitation for accessory structures used for home occupations. March 26, 2025, Hearing Transcript, p. 21.

These admissions established both the commercial scale of the operation and its primary rather than incidental nature relative to the residential use of the property.

In addition, the content on the website for the Speakeasy Speed Shop, LLC, confirms the commercial nature of the operations at 30 Santa Rosa Drive:

- “Speakeasy Speed Shop is a family owned and operated company that has been born from a love of all things motorsports and welding. We specialize in welding, fabrication, machining, composite repair and prototype work.” Plaintiff’s Exhibit 1, p. 19 (referencing website content).
- “Being one of the few shops in the country that can handle the repair and restoration of aluminum monocoque chassis, we work closely with the customer and strive to obtain all the original documents, design drawings and specifications available to bring the chassis back to its original configuration along with the assembly of these collectable and prestigious automobiles.” Plaintiff’s Exhibit 1, p. 19 (referencing website content).

Collectively, Mr. Fagan’s position throughout the formal hearing was that his activities were permitted as a “home occupation”:

Everything we understood about the Howell Township zoning ordinance provided that we did not need to take additional steps to seek any sort of zoning change or conditional use. It is our understanding that we were well within the restraints of the at-home occupation. [January 13, 2025, Hearing Transcript, p. 8.]

However, Mr. Fagan also represented to the District Court that he had removed the operations from his property during the pendency of the proceedings. January 13, 2025, Hearing Transcript, p. 8 (“in the best interest of all parties involved, I have removed the alleged violation”). Mr. Fagan has never committed to continue to refrain from operating the Speakeasy Speed Shop, LLC, at his property in the future, however, so it remains crucial for a ruling that strictly applies the zoning regulations to the undisputed facts is rendered.

IV. The District Court finds Mr. Fagan responsible for violating the Zoning Ordinance but makes several legal errors in interpreting and applying the ordinance provisions.

The Township offered as witnesses Zoning Administrator Jonathan Hohenstein who testified regarding his investigation of the complaint, consultation with the township planner, issuance of warning letters, and personal inspection of Mr. Fagan’s garage operation where he confirmed the equipment and setup matched what he had viewed on the business website and YouTube videos. February 12, 2025, Hearing Transcript, pp. 8-37. The Township also called

neighbor Timothy Boal, who testified about observing metal fabrication activities, hearing grinding and cutting noises from the direction of Mr. Fagan's property (even inside of his own home), and witnessing semi-truck deliveries that caused damage to the private road surface. February 12, 2025, Hearing Transcript, pp. 48-56; March 26, 2025, Hearing Transcript, pp. 5-16.

Following the formal hearing conducted over three sessions, the District Court issued an oral ruling on March 26, 2025, finding Mr. Fagan responsible for violating the Township's Zoning Ordinance. March 26, 2025, Hearing Transcript, pp. 59-66. The District Court made several factual findings regarding Mr. Fagan's operation of the Speakeasy Speed Shop, none of which are contested on appeal, but then interpreted the Zoning Ordinance and applied the undisputed facts to those interpretations, which are contested on appeal. The following sections explain the ruling of the District Court.

A. The District Court's undisputed factual findings regarding Mr. Fagan's commercial operation.

The District Court made the following factual findings, which the Township does not challenge on appeal and Mr. Fagan failed to bring before this Court's jurisdiction through a cross-appeal:

- Mr. Fagan operated a registered LLC called the Speakeasy Speed Shop from his residential property. March 26, 2025, Hearing Transcript, p. 60.
- The Township conducted an investigation and sent several warning letters. March 26, 2025, Hearing Transcript, p. 59.
- The business had its own website displaying activities and machinery. March 26, 2025, Hearing Transcript, p. 60.
- Mr. Fagan operated the business from his garage, which measured 504 square feet. March 26, 2025, Hearing Transcript, p. 61.
- Mr. Fagan conducted business activities outdoors with the garage door open. March 26, 2025, Hearing Transcript, p. 61.

- The outdoor activities caused “unreasonable noise that did affect the welfare of the neighbors.” March 26, 2025, Hearing Transcript, p. 60.
- Work was being carried on outdoors, as evidenced by photographs in the record and Mr. Fagan’s own testimony. March 26, 2025, Hearing Transcript, p. 62.

It is clear based on these findings that the District Court accepted the Township’s allegation that the Speakeasy Speed Shop, LLC, was being operated at Mr. Fagan’s property in the garage by Mr. Fagan.

B. The District Court’s erroneous rewrite of the Township Zoning Ordinance and application of that interpretation to the established facts.

Based on these factual findings, the District Court made the following relevant⁶ legal determinations regarding the application of the Township’s Zoning Ordinance:

- **Finding of Responsibility:** The District Court found Mr. Fagan responsible for violating Section 14.19(E) of the Zoning Ordinance, which requires that “[a]ll activities shall be carried on indoors.” March 26, 2025, Hearing Transcript, p. 62. The Court determined that “it is clear from the record in the exhibits presented as well as Mr. Fagan’s testimony that work was being carried on outdoors.” March 26, 2025, Hearing Transcript, p. 62.
- **Home Occupation Determination:** Despite finding violations, the District Court concluded that Mr. Fagan’s business constituted a permissible “home occupation” under the Zoning Ordinance’s definition. The District Court stated: “At this point, the Court does find that Mr. Fagan’s business was a home occupation under article 2. While I do find that Mr. Fagan was engaging in a home occupation by performing activities outdoors and with the garage door open, it did cause unreasonable noise that did affect the welfare of the neighbors. But I’m still finding it to be within the definition of a home occupation.” March 26, 2025, Hearing Transcript, p. 61.
- **Section 14.19(B) - Floor Area Limitation:** The District Court found no violation of the 25% floor area limitation, despite acknowledging the garage was 504 square feet and the principal structure was depicted in Plaintiff’s Exhibit 3 as a gross area of 1,440 square feet. The District Court stated: “I don’t believe that the burden was met with regard to 1419B.”

⁶ The District Court made rulings on several provisions of Section 14.19 that are not the subject of this appeal. For clarity, the Township discusses only those District Court rulings that relate to the three legal errors being challenged: (1) the definition of “home occupation” under Section 2.02; (2) the floor area limitation under Section 14.19(B); and (3) the off-street loading requirements under Section 18.03. The Township does not challenge the District Court’s findings regarding other subsections of Section 14.19.

The District Court reasoned that “I did a brief calculation based upon all square footage presented in the document. It looks like it’s almost exactly 25%, but there’s no indication.” March 26, 2025, Hearing Transcript, p. 61.

- **Section 18.03 - Off-Street Loading Requirements:** The District Court held the off-street loading and unloading requirements did not apply to “home occupations,” concluding: “At this point, this does not pertain to single-family dwellings. There has been no compelling information on the record that it applies to home occupations either.” March 26, 2025, Hearing Transcript, p. 64-65.

Based on finding only a violation of Section 14.19(E), the Court imposed a fine of \$100, court costs of \$90, and a justice fee of \$10, for a total of \$200. March 26, 2025, Hearing Transcript, p. 65.

V. The Township appeals only the District Court’s legal errors while not challenging the finding of responsibility or established facts.

The Township does not contest the District Court’s factual findings or the determination that Mr. Fagan violated Section 14.19(E) by conducting activities outdoors. However, the Township respectfully submits that the District Court committed clear legal errors in its application of the Zoning Ordinance’s plain language to the undisputed facts, specifically regarding: (1) the definition of “home occupation” regarding land uses that are “customarily conducted” inside a dwelling and noise impacts on neighboring properties; (2) the mathematical calculation required under Section 14.19(B)’s 25% floor area limitation; and, (3) the applicability of Section 18.03’s loading requirements to “home occupations” that receive commercial deliveries. These legal errors, while not affecting the finding of responsibility in this case, create significant concerns for the Township’s ongoing zoning enforcement efforts and require correction by this Court.

STANDARD OF REVIEW

This appeal requires the Court to review two related but distinct issues: how the District Court interpreted the language of the Zoning Ordinance and whether the District Court correctly

applied that law to the facts it found. “The interpretation of a zoning ordinance presents a question of law subject to review de novo.” *Brandon Charter Twp. v Tippet*, 241 Mich App 417, 421; 616 NW2d 243 (2000). Similarly, this Court reviews “how the trial court applied the facts to the relevant law de novo.” *Cain v Dep’t of Corrections*, 451 Mich 470, 503 n 38; 548 NW2d 210 (1996). When interpreting ordinances, courts follow the same approach used for statutes. *Ahearn v Bloomfield Charter Twp.*, 235 Mich App 486, 498; 597 NW2d 858 (1999). “If the language is clear and unambiguous, the courts may only apply the language as written.” *Id.* The goal is to “give effect to the legislative body’s intent.” *Ballman v Borges*, 226 Mich App 166, 167; 572 NW2d 47 (1997).

ARGUMENT

I. The District Court committed legal error by holding Mr. Fagan’s commercial speed shop operation constituted a “home occupation” despite violating multiple elements of the definition, including the prohibitions on uses not customarily conducted entirely within dwellings and uses that endanger neighbor welfare through noise.

The Zoning Ordinance allows “home occupations” as a mechanism for conducting commercial activities that would otherwise be prohibited in the Single-Family Residential District. Zoning Ordinance § 14.19 (“Home occupations shall be permitted in all residences in all districts...” meeting certain enumerated requirements). However, the Zoning Ordinance establishes a strict definition that serves as the proper guardrail for any proposed commercial activity and use must satisfy to be placed within one of the Township’s residential neighborhood. Zoning Ordinance § 2.02. This definition operates as the scope of the use that is permissible under the Zoning Ordinance—if an activity fails to meet any element of this definition, it cannot qualify as a permissible “home occupation” regardless of whether it might satisfy the nine additional conditions listed in Section 14.19. See Zoning Ordinance §§ 2.02, 14.19.

The definition requires that a home occupation be: (1) “customarily conducted entirely within the dwelling and carried on by the inhabitants thereof”; (2) “clearly incidental and secondary to the use of the dwelling for dwelling purposes” and cannot “change the character thereof”; (3) must not “endanger the health, safety, and welfare of any other persons residing in that area by reasons of noise, noxious odors, unsanitary or unsightly conditions, fire hazards and the like”; and (4) “shall not require internal or external alterations of construction features, equipment, machinery, outdoor storage, or signs not customarily in residential areas.” Zoning Ordinance § 2.02.

The District Court’s determination that Mr. Fagan’s commercial speed shop constituted a permissible “home occupation” violates the definition in two independent and fatal ways. March 26, 2025, Hearing Transcript, p. 60 (“Mr. Fagan’s business was a home occupation...”).

First, a commercial speed shop is not a use “customarily conducted entirely within the dwelling” as required by the definition. To explain, the Zoning Ordinance defines “dwelling” as “[a] building designed or used exclusively as a living quarters for one (1) or more families but not including automobile chassis, tents or portable buildings.” Zoning Ordinance § 2.02. This is important because the Township Board’s explicit exclusion of “automobile chassis” from the dwelling definition is dispositive here. If automobile chassis cannot even be considered part of a dwelling, then commercial operations focused on fabricating and modifying automobile chassis—like speed shops—cannot be “customarily conducted” within dwellings. It is that simple. Even more fundamentally, speed shops are commercial operations involving heavy machinery, metal cutting, grinding, welding, and automotive fabrication. Such operations are customarily conducted in industrial facilities—not in residential living quarters.

The District Court’s conclusion that this operation could qualify as “customarily conducted” within a dwelling simply contradicts both the Zoning Ordinance’s plain language and common sense—essentially ignoring this element of a “home occupation.” Under the District Court’s flawed reasoning, any commercial activity could qualify as a “home occupation” simply by being conducted within a residential structure, regardless of compatibility with residential use. This eviscerates the Township Board’s careful distinction between residential living quarters and commercial operations that were established by the elected legislative policy makers.

Second, and even more starkly, the District Court’s factual findings directly contradict the definition’s prohibition on activities that endanger neighbor welfare through noise. Independent of the “customarily conducted” requirement, the definition explicitly prohibits any use that “endanger[s] the health, safety, and welfare of any other persons residing in that area by reasons of noise, noxious odors, unsanitary or unsightly conditions, fire hazards and the like.” Zoning Ordinance § 2.02. This prohibition contains no exceptions or qualifications—it establishes an absolute bar against home occupations that impact neighbor welfare through noise or other disturbances.

The District Court made a clear factual finding that directly violates this prohibition: Mr. Fagan’s activities “did cause unreasonable noise that did affect the welfare of the neighbors.” March 26, 2025, Hearing Transcript, p. 61. This finding establishes exactly what the definition of “home occupation” prohibits—an activity that endangered the welfare of persons residing in the area by reason of noise. Despite this factual finding that directly contradicts the definition’s requirements, the District Court inexplicably concluded that “Mr. Fagan’s business was a home occupation under article 2.” March 26, 2025, Hearing Transcript, p. 60. The Court’s complete reasoning reveals the logical impossibility of its conclusion:

While I do find that Mr. Fagan was engaging in a home occupation by performing activities outdoors and with the garage door open, it did cause unreasonable noise that did affect the welfare of the neighbors. But I'm still finding it to be within the definition of a home occupation. [March 26, 2025, Hearing Transcript, p. 60.]

The District Court's conclusion constitutes an impermissible rewriting of the Township Zoning Ordinance in violation of *Brae Burn* and *Schwartz*. The Court essentially said "Mr. Fagan's business caused unreasonable noise that affected his neighbors' welfare, but it's still a home occupation." The Zoning Ordinance could not be clearer, and the District Court found that Mr. Fagan's operation "did cause unreasonable noise that did affect the welfare of the neighbors"—which means it violated this fundamental requirement. End of analysis.

These two basic errors of the District Court reflect a fundamental misunderstanding of its judicial role. As explained, courts do not have the power to rewrite zoning ordinances or create exceptions where the legislative body has not provided them. As the Michigan Supreme Court has repeatedly emphasized:

We are brought, then, to the merits of the zoning scheme itself. In view of the frequency with which zoning cases are now appearing before this Court, we deem it expedient to point out again, in terms not susceptible of misconstruction, a fundamental principle: this Court does not sit as a superzoning commission. Our laws have wisely committed to the people of a community themselves the determination of their municipal destiny, the degree to which the industrial may have precedence over the residential, and the areas carved out of each to be devoted to commercial pursuits. With the wisdom or lack of wisdom of the determination we are not concerned. The people of the community, through their appropriate legislative body, and not the courts, govern its growth and its life. Let us state the proposition as clearly as may be: It is not our function to approve the ordinance before us as to wisdom or desirability. For alleged abuses involving such factors the remedy is the ballot box, not the courts. We do not substitute our judgment for that of the legislative body charged with the duty and responsibility in the premises. [*Brae Burn, Inc v City of Bloomfield Hills*, 350 Mich 425, 430-431 (1957).]

The Township Board in this case legislatively enacted a definition for "home occupations" that drew clear lines to protect residential neighborhoods from incompatible commercial uses. When those lines cannot be satisfied or are crossed by an activity, the activity is not afforded the status

of a “home occupation” that is allowable even if it meets the other requirements in the Zoning Ordinance. Simply put, the District Court was without authority to disregard the definition of a “home occupation.” *Schild v Pere Marquette R Co*, 200 Mich 614, 618; 166 NW 1018 (1918) (“The judicial power does not extend to setting aside the plain terms of the law.”).

This Court should reverse the District Court’s erroneous determination that Mr. Fagan’s activities qualified as a “home occupation” and hold those activities violating any element of the definition under Section 2.02 categorically cannot qualify as permissible home occupations.

II. The District Court committed legal error by holding there was no violation of Section 14.19(B)’s floor area limitation when Mr. Fagan’s 504-square-foot accessory structure exceeded 25% of the principal structure’s 1,440-square-foot gross floor area.

The Zoning Ordinance establishes nine requirements in Section 14.19 that are generally applicable to all “home occupations” and must be satisfied before any such use can be deemed permissible. Zoning Ordinance § 14.19. These requirements serve as mandatory conditions that operate independently—a “home occupation” must comply with all nine provisions, not merely some subset of them.

Section 14.19(B) specifically establishes distinct floor area limitations depending on the location of the “home occupation”:

The occupation shall utilize no more than twenty-five (25) percent of the ground floor area of the principal structure or an accessory structure not to exceed twenty-five (25) percent of the gross floor area of the principal structure.

This plain language of this provision creates two separate analytical frameworks: (1) if the “home occupation” is conducted within the principal structure itself, the limitation is measured against the ground floor area of that structure; (2) if the “home occupation” is conducted within an

accessory structure, the limitation is measured against the gross floor area of the principal structure.

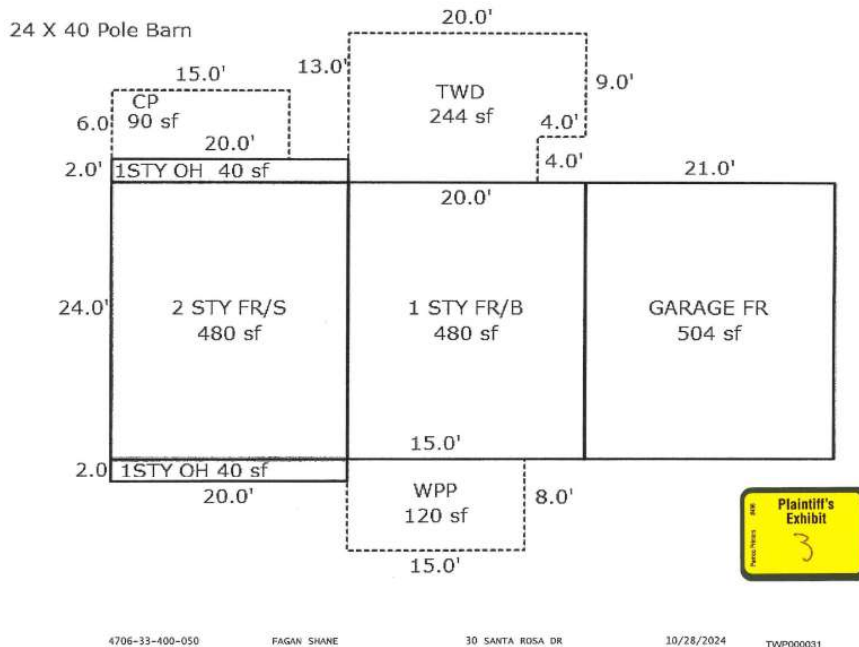
Mr. Fagan’s case deals with latter analytical framework—*i.e.*, a “home occupation” being conducted within an accessory structure⁷—and so the limitation is measured against the gross floor area of the principal structure. The Zoning Ordinance’s definition of gross floor area is as follows:

The sum of the gross horizontal areas of the several floors of the building measured from the exterior face of the exterior walls or from the center line of walls separating two (2) buildings. The gross floor area of a building shall include the basement floor area when more than one-half (2) of the basement height is above the established curb level or finished lot grade. Any space devoted to off-street parking or loading shall not be included in gross floor area. Areas of dwelling basements, unfinished attics, utility rooms, breeze-ways, porches (enclosed or unenclosed) or **attached garages are not included**. [Zoning Ordinance § 2.02 (emphasis added).]

It is clear based on the definition of gross floor area that attached garages like Mr. Fagan’s are not included in the calculation.

The Township presented a drawing of Mr. Fagan’s home that Mr. Fagan confirmed was “an accurate depiction of the house sketch of the primary residence at 30 Santa Rosa Drive.” March 26, 2025, Hearing Transcript, p. 21. The drawing is Plaintiff’s Exhibit 3:

⁷ To clarify, alternative arguments were presented to the District Court related to whether the garage was part of the principal structure or an accessory structure, which necessitated legal arguments related to both analytical frameworks. The District Court, however, identified that the “garage is an accessory structure.” March 26, 2025, Hearing Transcript, p. 61. Therefore, the analytical framework for accessory structures is presented for this Court’s review.



The District Court found based on this drawing that the garage measured 504 square feet and made the corresponding finding that Mr. Fagan’s commercial operation “utilize[d] the entirety of the garage.” March 26, 2025, Hearing Transcript, p. 61.

Against the undisputed facts concerning the floor space involved, simple arithmetic reveals a clear violation of Section 14.19(B):

- **Accessory structure area used for home occupation:** 504 square feet
- **Gross floor area of principal structure:** 1,440 square feet
- **Maximum permitted area (25% of gross floor area):** 360 square feet
- **Accessory structure to gross floor area:** $504 \div 1,440 = 35\%$
- **Violation:** 35% exceeds the strict 25% limitation

The calculation in Mr. Fagan’s case is straightforward yet the District Court declined to find a violation of Section 14.19(B).

Somehow (it did not explain) the District Court determined that that math came out to be “exactly 25%”:

I am not going to make a finding with regard to the utilization of more than 25% of the ground floor area. I don't believe that the burden was met with regard to 1419B. ... The garage is an accessory structure, but I don't believe that the township has proven it exceeded more than 25%. I did a brief calculation based upon all square footage presented in the document. It looks like it's almost exactly 25%, but there's no indication. [March 26, 2025, Hearing Transcript, p. 61.]

The District Court's ruling constitutes clear legal error because the undisputed mathematical evidence demonstrates a violation of Section 14.19(B)'s requirements: Mr. Fagan's commercial speed shop was conducted in an accessory structure that was 35% of the principal structure's gross floor area, which exceeds the 25% limitation.⁸

Property owners throughout the Township deserve consistent application of percentage-based limitations, not subjective judicial estimates that are inconsistent with the Zoning Ordinance's plain language. If 35% can be deemed compliant with a 25% limitation, what prevents future violators from claiming that 40%, 50%, or even larger operations satisfy the same standard? The error also defeats the legislative purpose behind the size limitation. The Township Board established the 25% threshold to ensure that home occupations remain genuinely "incidental and secondary" to residential use. When commercial operations consume more than one-third of a structure's floor area—as here—they fundamentally alter the residential character the regulations were designed to preserve. Most critically, the District Court's ruling imports approximation into the clear mathematical requirements set forth the Zoning Ordinance. Those precise numerical

⁸ It is worth noting that even if this Court were to accept alternative interpretations—such as treating the garage as part of the principal structure rather than an accessory structure—Mr. Fagan's operation would still violate Section 14.19(B). To explain, if the garage were included as part of the principal structure's ground floor area, the total would be 1,464 square feet (960 + 504), making the maximum allowable home occupation area 366 square feet (25% of 1,464). Mr. Fagan's 504-square-foot operation would still exceed this limit by 138 square feet, representing a 38% violation of the allowable threshold. Moreover, it would be legally inconsistent to construe the garage as part of the principal structure for definitional purposes while simultaneously excluding it from the ground floor area calculation, as such an interpretation would render the garage both included and excluded from the same structural analysis under the Zoning Ordinance.

boundaries were established by the elected officials of the Township. As the Michigan Supreme Court has instructed courts, the District Court was not authorized to include subjective percentage approximation into the language of the zoning ordinance.

This Court should reverse the District Court's finding that Mr. Fagan did not violate Section 14.19(B) by operating his home occupation from a 504-square-foot accessory structure that represents 35% of his principal structure's gross floor area—plainly exceeding the 25% limitation. Only through such correction can the Township's legislative intent and plain language of the Zoning Ordinance be preserved to protect improper commercial activities and uses from imposing incompatibility and harm to the residential character of Township residential districts.

III. The District Court committed legal error by holding that Section 18.03's off-street loading and unloading requirements do not apply to "home occupations" when the plain language of the Zoning Ordinance establishes requirements for all uses that "customarily receive or distribute material or merchandise" by vehicle.

Section 18.03 of the Zoning Ordinance establishes mandatory off-street loading and unloading requirements "in connection with every use" throughout the Township that "customarily receive or distribute material ... by vehicle." However, Section 18.03 exempts "single family, two family and multiple family dwelling unit structures" from these requirements. The entirety of Section 18.03 is as follows:

In connection with every use, except single family, two family and multiple family dwelling unit structures, there shall be provided on the same lot with such buildings, off-street loading and unloading spaces for permitted or special uses which customarily receive or distribute material or merchandise or provide services by vehicle as follows ...

Section 18.03(A) goes on to mandate all land uses falling within the purview of the restrictions require advance planning and approval:

Plans and specifications showing required loading and unloading spaces, including the means of ingress and egress and interior circulation, shall be submitted to the

Zoning Administrator for review at the time of application for a Zoning Permit for the establishment or enlargement of a use of land, building or structure.

This regulatory framework reflects the Township Board's legislative determination that commercial operations requiring vehicle deliveries must have appropriate facilities to minimize impacts on residential neighborhoods and public roadways.

Critically, the Zoning Ordinance defines "home occupations" as a distinct land use category separate and apart from simple residential dwelling occupancy (which are exempt from such requirements). To explain this point completely, the Zoning Ordinance defines a "home occupation" as its own distinct land use. See Zoning Ordinance § 2.02 (defining a "home occupation" as "any use" that meets the definition). In other words, the Zoning Ordinance treats "home occupations" as a form of commercial use that is permitted within residential structures under specific conditions, not as an extension of the underlying residential use itself. This distinction is fundamental: while the underlying property retains its residential zoning designation, the "home occupation" represents a separate commercial land use that operates within the overall residential framework subject to specific regulatory requirements. The distinction is important because Section 18.03's exemption for "dwelling unit structures" refers specifically to the buildings themselves when used for their intended residential purposes, not to commercial operations that may be conducted along with that land use. Moreover, the Zoning Ordinance defines "dwelling" as a "building designed or used exclusively as a living quarters for one (1) or more families." Zoning Ordinance § 2.02.

By definition, commercial operations such as Mr. Fagan's speed shop do not constitute residential living quarters, even when conducted within or adjacent to residential structures. Simply put, when a property owner operates a commercial business from their residence, that commercial component represents a separate land use that must comply with applicable

commercial regulations, including loading requirements when the operation “customarily receive[s] or distribute[s] material or merchandise” by vehicle. Zoning Ordinance § 18.03.

Despite this clear regulatory framework, the District Court summarily declined to apply Section 18.03 despite finding Mr. Fagan’s activity did meet the definition of a “home occupation”:

With regard to the alleged violation of 18.03, the Court does not find a violation of 18.03. There do not appear to be excessive commercial operations or deliveries to the location. it says, in connection with every use except single-family, two-family, and multi-family dwelling unit structures, they shall be provided on the same lot with such buildings off-street loading and unloading spaces for permitted or special uses which customarily receive or distribute material or merchandise or services provided by a vehicle as follows. At this point, this does not pertain to single-family dwellings. There has been no compelling information on the record that it applies to home occupations either. [March 26, 2025, Hearing Transcript, pp. 64-65.]

The District Court’s interpretation demonstrates fundamental legal error in multiple respects.

First, the Court conflated “single-family dwelling unit structures” with all activities that occur within residential properties, ignoring the Zoning Ordinance’s careful distinction between the underlying residential use and commercial operations conducted within residential areas. The Section 18.03 exemption applies to “dwelling unit structures” when used for residential purposes, not to separate commercial land uses that happen to be located within or near residential buildings. Mr. Fagan’s speed shop constituted a distinct commercial land use that must be analyzed independently from the property’s underlying residential character.

Second, the District Court ignored the plain language of Section 18.03, which establishes loading requirements for any “use” that “customarily receive[s] or distribute[s] material or merchandise” by vehicle. The Zoning Ordinance does not limit this requirement to industrial or commercial zoning districts; rather, it applies throughout the Township to any land use meeting the functional criteria. “Home occupations” that require regular commercial deliveries fall

squarely within this regulatory framework regardless of their location within or near residential structures.

Third, the District Court’s statement that there was no “compelling information on the record that it applies to home occupations” reflects a misunderstanding of statutory interpretation—this was not an error of evidence but rather interpretation. The Zoning Ordinance’s language is clear and unambiguous: it applies to every “use” that meets the functional criteria, with specific exemptions only for dwelling unit structures used for residential purposes. Courts cannot create additional exemptions where the legislative body has not provided them. *Byker v Mannes*, 465 Mich 637, 646-47; 641 NW2d 210 (2002) (“It is a well-established rule of statutory construction that this Court will not read words into a statute.”).

The District Court’s erroneous interpretation is particularly troubling given it classified Mr. Fagan’s activities as a “home occupation.” March 26, 2025, Hearing Transcript, p. 61. Although the Township seeks a ruling that the activities of Mr. Fagan do not constitute a permissible “home occupation,” it seeks this Court to additionally clarify that the requirements of Section 18.03 do apply to “home occupations” that “customarily receive[s] or distribute[s] material or merchandise” by vehicle.⁹

⁹ To the extent this Court were to find Mr. Fagan’s activities as falling within the definition of a “home occupation,” there is ample evidence in the record that reveals there were regular deliveries in connection with Mr. Fagan’s home occupation and there would be a violation. Plaintiff’s Exhibit 5; Plaintiff’s Exhibit 8; February 12, 2025, Hearing Transcript, p. 32 (testimony of Mr. Hohenstein); February 12, 2025, Hearing Transcript, p. 55-56 (testimony of Mr. Boal). However, as explained, the Township seeks a ruling that Mr. Fagan’s activities did not fall within a definition of a “home occupation” and were violative of the Zoning Ordinance rendering any plans pursuant to Section 18.03 inapplicable (Mr. Fagan would only require plans if it were a legitimate “home occupation”). Notwithstanding, the Township seeks reversal of the District Court’s ruling determining that the Section 18.03 does not apply to “home occupations” and a simple ruling that Section 18.03 may apply to “home occupations” under certain circumstances.

The legal error in the District Court’s interpretation has significant practical consequences that extend well beyond this individual case. By exempting “home occupations” from loading requirements, the District Court’s ruling creates a regulatory loophole that allows commercial operators to circumvent essential public safety and neighborhood protection measures. Under this erroneous interpretation, home-based businesses could receive unlimited commercial deliveries without any planning oversight or loading facility requirements, simply by claiming “home occupation” status.¹⁰ This result directly contradicts the Township Board’s comprehensive approach to managing commercial impacts throughout the community.

This Court should reverse the District Court’s erroneous interpretation of Section 18.03 and hold that “home occupations” which customarily receive commercial deliveries by vehicle must comply with the ordinance’s off-street loading and unloading requirements. Such a ruling would restore the comprehensive regulatory framework the Township Board enacted while ensuring that commercial operations, regardless of their location, adequately plan for their infrastructure impacts on surrounding communities.

CONCLUSION AND RELIEF REQUESTED

The District Court reached the correct result by finding Mr. Fagan responsible for violating the Howell Township Zoning Ordinance. However, the District Court made three fundamental legal errors that effectively rewrote key provisions of the Township’s carefully crafted regulatory framework in violation of the separation of powers principles established in *Brae Burn* and *Schwartz*. These errors create unwarranted exceptions to clear ordinance language and undermine

¹⁰ The Township does maintain that even if Section 18.03 were to not apply to “home occupations” that there could be issues with regular deliveries as that would evidence external evidence of a “home occupation” in violation of Section 14.09(G) of the Zoning Ordinance. However, that issue exceeds the scope of this appeal and would be properly addressed in the appropriate case.

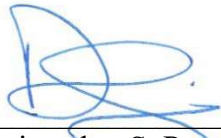
the comprehensive zoning standards the Township Board enacted to protect residential neighborhoods from incompatible commercial uses.

The Township respectfully requests this Court reverse the District Court’s three erroneous legal holdings by clarifying that: (1) activities violating any element of the “home occupation” definition—including the prohibitions on uses not customarily conducted entirely within dwellings and uses that endanger neighbor welfare through noise—cannot qualify as permissible home occupations; (2) a 504-square-foot structure used for a home occupation mathematically exceeds Section 14.19(B)’s 25% limitation when the principal structure’s gross floor area is 1,440 square feet; and (3) Section 18.03’s off-street loading requirements apply to “home occupations” that customarily receive commercial deliveries by vehicle, as the ordinance exempts only “dwelling unit structures” used for residential purposes, not commercial operations conducted within residential areas. Such a ruling would restore the proper judicial role of interpreting—rather than rewriting—zoning ordinances while ensuring consistent enforcement of the Township’s legislative determinations regarding appropriate land uses within residential neighborhoods.

Respectfully submitted,

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Dated: June 4, 2025

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CERTIFICATE OF COMPLIANCE

1. This brief complies with the volume limitations of MCR 7.212(B) because, excluding parts of the brief exempted by MCR 7.212(B)(2), this brief contains no more than 16,000 words. This brief contains 8,663 words.
2. This brief complies with the style requirements of MCR 7.212(B)(5) because this brief has been prepared in at least 1.5 line-spaced text, except for quotations and footnotes, using Microsoft word in 12-point Times New Roman font with one-inch margins.

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**STATE OF MICHIGAN
LIVINGSTON COUNTY CIRCUIT COURT**

HOWELL TOWNSHIP,

Plaintiff/Appellant,

Circuit Court Case No. 2025-398-AV

v.

District Court Case No. HOMVo1580N

SHANE RAY FAGAN,

Hon. L. Suzanne Geddis

Defendant/Appellee.

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APPELLEE’S RESPONSE TO APPELLANT’S BRIEF ON APPEAL

ORAL ARGUMENT REQUESTED

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STATEMENT OF THE BASIS OF THE COURT'S JURISDICTION

Appellee concurs with Appellant's Jurisdictional Statement. Appellee agrees that this Court has jurisdiction to hear this appeal pursuant to MCR 7.103(A)(1) and MCL 600.8342. Appellee further acknowledges that he has not filed a cross-appeal in connection with this matter.

INTRODUCTORY STATEMENT
AND
COUNTER-STATEMENT OF QUESTIONS INVOLVED

The District Court found Mr. Fagan responsible for a violation of the Howell Township Zoning Ordinance, assessing fines and court costs against him. Although Mr. Fagan disagreed with the District Court's determination and findings relative to the claimed violation of the Ordinance, Mr. Fagan nevertheless elected not to file an appeal or cross appeal or to otherwise challenge the District Court's ruling.

Unfortunately, however, notwithstanding the fact that the allegedly improper use and activity underlying the Township's civil infraction citation have been entirely removed from Mr. Fagan's residential premises – and, indeed, had already been removed from the premises prior to the conclusion of the proceedings in the District Court – the Township nevertheless appears unwilling to leave well enough alone, and now seeks to challenge the District Court's ruling on multiple grounds.

In its appeal, the Township not only asks this honorable Court to place itself into the shoes of the trier of fact and second-guess the trial judge's factual findings and weighing of the evidence, but also asserts that the trial judge made errors of law when, in fact, it is the many glaring inconsistencies and ambiguities contained in the Township's own zoning ordinance that are the source of the fundamental problems underlying this case, and underlying the Township's pursuit and prosecution of Mr. Fagan.

Howell Township should be focusing its time, efforts, and resources upon fixing its zoning ordinance and correcting the troubling ambiguities and inconsistencies contained in that ordinance, rather than filing an appeal alleging error on the part of a

trial judge who, at the end of the day, was forced to interpret and apply an ordinance that is poorly drafted and otherwise deeply flawed.

The questions presented on appeal are as follows:

I. DID THE DISTRICT COURT CORRECTLY DETERMINE THAT APPELLEE’S HOME-BASED BUSINESS CONSTITUTED A “HOME OCCUPATION” AS DEFINED AT ARTICLE II OF THE HOWELL TOWNSHIP ZONING ORDINANCE?

The District Court answered “Yes”
The Plaintiff/Appellant answers “No”
The Defendant/Appellee answers “Yes”

II. DID THE DISTRICT COURT CORRECTLY APPLY SECTION 14.19 OF THE TOWNSHIP’S ZONING ORDINANCE, WHEN DETERMINING THAT APPELLEE’S OPERATION OF HIS HOME-BASED BUSINESS COMPLIED WITH SUBSECTIONS “A” THROUGH “D” AND “F” THROUGH “I” OF SECTION 14.19?

The District Court answered “Yes”
The Plaintiff/Appellant answers “No”
The Defendant/Appellee answers “Yes”

III. DID THE DISTRICT COURT CORRECTLY APPLY SECTION 18.03 OF THE TOWNSHIP’S ZONING ORDINANCE, WHEN DETERMINING THAT APPELLEE WAS NOT IN VIOLATION OF THAT SECTION OF THE ORDINANCE IN CONNECTION WITH HIS OPERATION OF HIS HOME-BASED BUSINESS?

The District Court answered “Yes”
The Plaintiff/Appellant answers “No”
The Defendant/Appellee answers “Yes”

COUNTER-STATEMENT OF FACTS
AND PROCEDURAL BACKGROUND

Appellee agrees with, and adopts by reference, much of the procedural history provided by Appellant in its Brief on Appeal. There are not significant disagreements between the parties relative to what, precisely, the trial court ordered at the conclusion of trial in this case. Nor does there appear to be significant disagreement over the legal bases – and, in particular, the specific sections of the Township zoning ordinance -- underlying the trial judge’s determinations at the conclusion of trial.

To the extent that this appeal raises disagreements between these parties, they are disagreements centered almost entirely around the trial judge’s interpretation and application of the Township’s zoning ordinance, and the interplay between various sections of the zoning ordinance.

Contrary to Appellant’s claims in its Brief, when interpreting and applying the zoning ordinance, the trial judge did not attempt to act as a “superzoning commission.” Nor did the trial judge “rewrite zoning regulations in violation of established separation of powers principles.”

Rather, this is a case in which a trial judge – faced with multiple ambiguities and inconsistencies in a Township’s zoning ordinance, including at least one direct conflict between two sections of the ordinance – endeavored, successfully as it turns out, to interpret the various competing and conflicting provisions in the only way that they could be interpreted in order to resolve, or at least minimize, the ambiguities, inconsistencies, and conflicts in question.

Appellant asserts that it has filed this appeal, despite obtaining a finding of responsibility relative to Appellee’s alleged breach of the zoning ordinance, because the trial court’s “legal interpretations have significant implications,” and

because the trial court's decision "create[es] uncertainty for future zoning enforcement...." (Appellant's Brief at p. 10).

Respectfully, Appellee asserts that it is not the trial court's interpretation and application of the zoning ordinance that has created uncertainty here. It is, rather, the zoning ordinance itself. It is, specifically, the multiple ambiguities and inconsistencies contained within the ordinance that have created uncertainty here, not only for Appellee Shane Fagan, but also for other property owners in the Township and, apparently, for the Township's own zoning enforcement officials.

The interpretation of a township zoning ordinance does, indeed, have "significant implications" – for the Township and for its residents. Unfortunately, however, where an ordinance is drafted in a way that creates uncertainty, inconsistency, and a lack of predictability, there often are few options other than saddling a trial judge with the unenviable task of having to interpret the ordinance in question so as to reduce points of ambiguity where they exist, and in order to create consistency where ordinance provisions are, on their face, somewhat inconsistent.

STANDARD OF REVIEW

Appellant seeks reversal of the trial court's interpretation and application of several sections of the Township's zoning ordinance. Appellant also challenges certain factual determinations made by the trial court.

Appellee believes that Appellant has correctly stated the standard of review applicable to this Court's review of the trial court's interpretation of the Township's zoning ordinance. Interpretation of a zoning ordinance does present a question of law, and review of a trial court's interpretation of an ordinance is therefore subject to a *de*

novo standard. *Brandon Charter Twp. v Tippet*, 241 Mich App 417, 421; 616 NW2d 243 (2000).

However, with respect to review of a trial court's factual determinations, greater deference is required on the part of an appellate court. A "*clearly erroneous*" standard applies. MCR 2.613(C). A finding of fact by a trial court is "clearly erroneous" only where, "after a review of the entire record, an appellate court is left with a definite and firm conviction that a mistake has been made." *People v Roberts*, 292 Mich App 492, 808 NW 2d 290 (2011) (quoting *People v Swirles (After Remand)*, 218 Mich App 133, 136, 553 NW2d 357 (1996)).

ARGUMENT

A. The trial court correctly determined that Appellee's home-based business constituted a "home occupation," as defined at Article II of the Howell Township Zoning Ordinance.

Article II of the Howell Township Zoning Ordinance defines "Home Occupation" as follows:

Any use customarily conducted entirely within the dwelling and carried on by the inhabitants thereof, not involving employees other than members of the immediate family residing on the premises, which use is clearly incidental and secondary to the use of the dwelling for dwelling purposes, does not change the character thereof, and which does not endanger the health, safety, and welfare of any other persons residing in that area by reasons of noise, noxious odors, unsanitary or unsightly conditions, fire hazards and the like, involved in or resulting from such occupation, professions or hobby. Providing further, that no article or service is sold or offered for sale on the premises, except as such as is produced by such occupation; that such occupation shall not require internal or external alterations of construction features, equipment, machinery, outdoor storage, or signs not customarily in residential areas.

(Howell Township Zoning Ordinance, Article II).

In asserting that Appellee's home-based business did not qualify as a "home occupation," the Township places great emphasis upon the fact that certain of the

activities carried out by Appellee in connection with the business were carried out in his garage, rather than inside his home. This argument is fundamentally flawed.

The Township's argument not only ignores the plain language contained in the definition of "home occupation" at Article II of the ordinance, but also ignores the plain language of Section 14.19, which further addresses, and sets forth requirements related to, participation in a home occupation in a residential zoning district in the Township.

The presence of the word "customarily" in the definition set forth at Article II is important. "Customarily" does not mean "always" or "without exception." The word "customarily," as used in common parlance, means "habitually" or "commonly."

Webster Encyclopedic Dictionary of the English Language, 1980 Edition.

The fact that Appellee's home-based business was conducted, in whole or in part, in his garage, does not prevent the business from being defined or characterized as a "home occupation" under the Howell Township Zoning Ordinance. If the Township intended that a business could *never* be characterized as a "home occupation" if it was carried on in an attached garage rather than inside a dwelling, the Township's Planning Commission and the Township Board, in drafting and adopting the zoning ordinance, could have accomplished that result.

Instead of beginning the definition of "home occupation" with the words "[a]ny use customarily conducted entirely within the dwelling...", the Township could have instead worded the definition without the qualifying "customarily," and could have defined a "home occupation" as one always – and only -- "conducted entirely within the dwelling..." By inserting the word "customarily" into the definition, the drafters of the ordinance clearly intended that, while a home occupation would "habitually," "commonly," or "usually" be conducted entirely inside the dwelling, there might be occasions when a use might constitute a "home occupation" even though it occurred, in

whole or in part, in a garage, in an accessory structure, or elsewhere on the residential premises.

This is further borne out by the language used in another section of the Ordinance – Section 14.9 – which further addresses and establishes requirements related to “home occupations.” Section 14.9 provides, in relevant part, that “[h]ome occupations shall be permitted in all residences in all districts and include such customary home occupations as **small workshops** and businesses provided such home occupation shall satisfy the following conditions: . . . (B) [t]he occupation shall utilize no more than twenty-five (25) percent of the ground floor area of the principal structure **or an accessory structure** not to exceed twenty-five (25) percent of the gross floor area of the principal structure.” (Howell Township Zoning Ordinance, Section 14.9) (emphasis added).

Clearly, if the definition of “home occupation” at Article II of the ordinance was intended to allow for uses or occupations occurring entirely, and always, inside the primary residential structure, Section 14.9 of the same ordinance would not provide for limitations related to the utilization of “an accessory structure” in connection with a “home occupation.”

Drafters of township ordinances, like any other legislative body, are presumed to use words intentionally, according to their customary meanings, and are presumed to intend that the words they use be given effect. By providing for the possibility that a “home occupation” might be carried on in an “accessory structure,” the drafters of the Howell Township zoning ordinance clearly evidenced an intention that a use might qualify as a “home occupation” even if that use was not confined, entirely, to the primary residence located on a residentially zoned parcel.

The trial court correctly determined that Shane Fagan’s home-based business is a “home occupation” pursuant to Article II of the Howell Township zoning ordinance. The

business conducted by Mr. Fagan on the property satisfies each and every one of the criteria contained within the definition of “home occupation” set forth in Article II. To the extent that the Township challenges the trial judge’s determination in this regard, the Township is asking this Court, sitting as an appellate court, to step into the shoes of the trier of fact who actually received evidence and testimony at trial, and who was best positioned to evaluate the credibility of the witnesses who testified and the strength of the documentary and other evidence presented.

The trial judge determined that Mr. Fagan’s business use of the property did not involve employees other than members of the Fagan family. The trial judge determined that his business operations on the property were clearly incidental and secondary to the use of the dwelling for dwelling purposes. The trial judge determined that his use of the property in connection with his business did not change the character of the property. Finally, although she might have made certain findings relative to noise emanating from the property, the trial judge, by all indications, determined that Mr. Fagan’s business use of the property was not a use that “endangered the health, safety, and welfare of any other persons residing in that area....”¹

¹ The Township asserts that because the trial judge found that some noise did emanate from the property, Appellee’s use of the property was, per se, not a “home occupation” as defined at Article II of the zoning ordinance. The Township’s argument is misplaced.

At the conclusion of the final hearing in connection with this matter, the trial judge made it clear that the focus of her inquiry and analysis was whether, as contemplated by the plain language of the ordinance, any noise emanating from the property “endangered” the health, safety, and welfare of surrounding landowners. The trial judge’s thought process when evaluating the testimony and evidence presented was made clear via the following exchange with counsel for the Township:

THE COURT: All right. So you think the neighbor’s health and safety was jeopardized by the noise coming from the speed shop?

MR. SZYMANSKY: Yes, your Honor. I think that individuals living in a residentially zoned community have a right not to live near a sped shop in a garage that at times has a garage door open and is making noise to the detriment of everyone in the surrounding community.

THE COURT: But you agree Mr. Fagan lives on a 15-acre parcel, is that correct?

MR. SZYMANSKY: Yes, your Honor.

Each of the findings made by the trial court, in its application and evaluation of Article II of the ordinance, was a factual finding. These were findings made by the trier of fact after hearing testimony and receiving evidence over the course of a trial spanning three separate sessions. The trial judge's findings are entitled to the deference that a "clearly erroneous" standard of review entails. The Township simply has not presented arguments sufficient to demonstrate that, based upon the entire record, the result reached by the trial court was clearly erroneous.

B. The trial court correctly applied Section 14.19 of the Township's zoning ordinance when determining that Appellee's operation of his home-based business complied with subsections "A" through "D" and "F" through "I" of Section 14.19.

In connection with its appeal of the trial court's interpretation and application of Section 14.19 of the Township zoning ordinance, Appellant focuses its challenge upon just a couple of the criteria contained in that Section. In particular, Appellant devotes a significant portion of its Brief to discussion of the trial court's evaluation of subsection (B) of Section 14.9, which provides:

The occupation shall utilize no more than twenty-five (25) percent of the ground floor area of the principal structure or an accessory structure not to exceed twenty-five (25) percent of the gross floor area of the principal structure.

(Howell Township Zoning Ordinance, Section 14.19(B)).

This subsection of the zoning ordinance is fundamentally flawed and ambiguous. Specifically, in defining the maximum floor area that a home occupation is permitted to occupy or utilize, it is entirely unclear, based upon the terminology used in this section, whether an individual's ability to utilize an accessory structure is limited by the size of the structure in relation to the principal residence, or, instead, is limited by the portion

(3/26/25 Transcript at pages 47-48). Moreover, when making her findings of fact a bit later in the hearing, the trial judge specifically noted that, to the extent that Mr. Fagan's activities in connection with his business caused noise that impacted upon his neighbors, that was the case only when he was "performing activities outdoors and with the garage door open...." (3/26/25 Transcript at page 60).

or percentage of the accessory structure that is used in connection with the home operation. Depending upon the reading given to this section – and especially if the section is read in the fashion proposed by the Township – the outcomes obtained can be anomalous, to say the least. Taken to its logical conclusion, the Township’s argument would theoretically lead to an operation utilizing ten square feet inside a large garage or pole barn being entirely disallowed under the ordinance, while an identical operation, utilizing or occupying hundreds of square feet inside the adjoining residence, would be entirely permitted.

By way of a simple example, if a primary residence is 1,600 square feet, with a 500 square foot attached garage, the Township’s proposed reading of the statute would mean that a use that would clearly be permitted if carried on inside the home – say, for instance, a use occupying 400 square feet in the 1,600 foot residence – would become illegal, and contrary to the requirements of the ordinance, if carried on in identical form, using precisely the same square footage, if it is moved to the garage, simply because the footprint of the garage is more than 25% of the square footage of the principal structure. Indeed, under this scenario, even a use occupying 100 square feet – legal if carried on inside the 1,600 square foot home – could not be moved to the attached garage because, again, the 500 square foot garage has a footprint exceeding 25% of the size of the home to which it is attached.

Conversely, a 200 square foot use or activity inside the garage – illegal based upon the size of the garage in relation to the size of the house – could literally be doubled in size and yet transform from illegal to legal, simply by being moved out of the garage and into the living room and dining room inside the home. This reading of the ordinance is as preposterous as the outcomes such a reading would engender. Clearly – and as noted by the trial judge during her closing comments on the third day of trial – the square

footage and size limitations set forth at Section 14.19 of the ordinance are intended to limit and control the impact of home occupations upon the property upon which they are carried out, as well as surrounding properties. Square footage does not matter for its own sake. Square footage matters because there will, invariably, be a correlation between the size or “footprint” of a use and the impact that the use is likely to have – both upon the property on which it is carried out and upon neighboring properties. As the trial judge noted when rendering her final ruling, “[i]t’s the Court’s interpretation that the purpose of [the square footage] provision is so that a home is not being utilized exclusively or primarily as a home occupation. That is not the case here.” (3/26/25 Transcript, at page 61).

The Township appears to be saying that, irrespective of how much or little of the attached garage was utilized by Mr. Fagan in connection with his home-based business, it is the *entire* square footage of the garage that must be considered when determining whether the home occupation being carried on in the garage violates the requirements of Section 14.19(B). Because, according to the Township, Mr. Fagan’s garage has a square footage that exceeds 25% of the square footage of his home, there is literally *no* home-based business or home occupation whatsoever -- no matter how small or unintrusive – that Mr. Fagan would be permitted to undertake in his garage. While a home occupation utilizing hundreds of square feet inside Mr. Fagan’s home would be permissible under the ordinance, the Township asserts that a home-based business occupy just a 10’ by 10’ corner in his 504 square-foot garage is not allowed. The Township, in order to advance this argument, is insisting upon an entirely tortured reading of its own ordinance – a tortured reading that is necessary solely because the ordinance is poorly drafted, ambiguous, and internally inconsistent.

The trial judge's interpretation of section 14.19 of the Township's ordinance was reasonable and proper. So to, her application of the law to the facts presented to her was appropriate. Having heard testimony spread over three separate hearings, the trial judge determined that "the non-residential use was only incidental," and did not "intrud[e] upon the residential use of the property." (3/26/25 Transcript at 61). As the trial judge concluded, the use in question is "a small workshop that was limited to a 504 square foot garage." (3/26/25 Transcript at 62). The trial court's factual findings were clearly supported by the evidence and testimony presented, and cannot, by any means, be characterized as "clearly erroneous."

C. The trial court correctly determined that Section 18.03 of the Township's zoning ordinance, which mandates improvements to property in certain zoning districts in connection with off-street loading and unloading operations, was not applicable to Appellee or his property, based upon the plain language of that section of the ordinance.

The Township's assertion that Section 18.03 of the zoning ordinance applies in this case is, likewise, flawed. Acceptance of the Township's argument is possible only if one ignores, entirely, the plain language of the ordinance.

Section 18.03 specifically provides that the off-street loading and unloading requirements set forth in that section apply "[i]n connection with every use, except single family, two family and multiple family dwelling unit structures...." The section is intended to require industrial or commercial properties to be equipped with the infrastructure necessary to accommodate the receipt and delivery of materials and/or merchandise in connection with "permitted or special uses" occurring on such properties.

By its clear terms, section 18.03 does not apply to permitted uses – including home occupation uses – taking place in residential settings. And yet, the Township has taken the position that Mr. Fagan, in connection with his home-based business, was

required to make the infrastructure improvements required in section 18.03 even though the business was being operated in a residential zoning district.

Taking the Township's position to its logical conclusion, a proprietor of a home-based, for-profit cookie or dog biscuit baking operation, who receives occasional deliveries from Gordon's Food Service, would be required to submit plans to the Township Building Department and make improvements to his or her residential property in the form of "off-street loading and unloading spaces." An individual making holiday wreaths and selling them on Etsy, who receives ribbons and other materials delivered to his or her home via Amazon, or who arranges for FedEx or UPS to pick up finished products to be shipped to Etsy customers, would need to submit plans and specifications to the Township Zoning Administrator for approval, detailing the design and layout of the off-street loading-unloading spaces -- "not less than ten (10) feet in width [or] 55 feet in length" -- that would be required to accommodate such pick-ups and deliveries. (Howell Township Zoning Ordinance, Section 18.03(B)). The Township's argument, if it is to be accepted, requires also that this Court accept a tortured and entirely unreasonable reading of the Township's own ordinance.

The flaws in the Township's position are further highlighted by a review of the requirements and limitations set forth at subsection (D) of section 18.03. That subsection provides:

A loading/unloading space shall not be located closer than fifty (50) feet to any residential lot or parcel unless wholly within a completely enclosed building, or unless enclosed on all sides by a wall, fence or compact planting not less than six (6) feet in height.

(Howell Township Zoning Ordinance, Section 18.03(D)). Clearly, this section is intended to protect residential owners who happen to live adjacent to non-residential properties. This section is not intended to protect residential owners from activities occurring on neighboring residential lots.

If the Township's argument and its reading of this section of the ordinance are accepted, essentially every single home-based proprietor who receives any deliveries to or pick-ups from their home whatsoever would need to not only provide for off-street loading and unloading spaces, but would also -- because those loading and unloading spaces would by definition be within fifty feet of a residential lot or parcel -- be required to enclose those loading and unloading spaces with a wall, a fence, or a six foot tall hedge. This clearly is not what was intended by the drafters of the ordinance.

The Township's argument relative to the applicability of Section 18.03 of the ordinance is deeply flawed, first and foremost because it ignores the plain language of the Township's own ordinance. The Township's argument should be rejected.

CONCLUSION AND REQUEST FOR RELIEF

For the reasons set forth above, Appellee Shane Fagan respectfully requests that the Court dismiss the Township's appeal and uphold the determination of the trial court.

Respectfully submitted,

Mark E. Crane, PLLC

Date: July 9, 2025

By: Mark E. Crane
Mark E. Crane (P49089)
Attorney for Appellee
420 West University Drive
Rochester, MI 48307
248-909-0956
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Attestation re: Word Count pursuant to MCR 7.111(B) and MCR 7.212

I attest that, per the word count function of the word processing system used to prepare this brief (Microsoft Word), this brief contains a **total word count** of **4,638** and contains **countable words** (pursuant to MCR 7.212(B)(3)) totaling **4,193**.

Mark E. Crane, PLLC

Date: July 9, 2025

By: Mark E. Crane
Mark E. Crane (P49089)
Attorney for Appellee

7C

Howell Township

3525 Byron Road • Howell, MI 48855
Phone: (517) 546-2817 • Fax (517) 546-1483
www.howelltownshipmi.org



TO: Howell Township Board

FROM: Teresa Murrish, Howell Township Deputy Treasurer

DATE: July 1, 2025

SUBJECT: Cybersecurity/Information Technology Committee Request

This memorandum serves as a request for the Board's consideration and approval in creating an Ad hoc Cybersecurity/Information Technology Committee. The purpose of this committee is to address the cybersecurity and IT needs of Howell Township and to gather information to provide the Board with guidance on how to move forward with our IT needs. The committee will be comprised of all volunteer members and will automatically dissolve once the Board recommendations have been made.

7D



Carlisle | Wortman
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

TO: Howell Township Planning Commission

FROM: Paul Montagno, AICP, Principal and Grayson Moore, Planner

DATE: July 9, 2025

RE: Proposed Zoning Ordinance Amendments for Accessory Dwelling Units

This memo provides a summary of actions taken by the Planning Commission at their June 24, 2025 meeting in response to the Township Board's direction given at its May 12, 2025 meeting regarding regulation of Accessory Dwelling Units (ADUs).

As requested by the Board, the Planning Commission reviewed the draft ordinance and amended the approval process for ADUs to allow administrative review, removing the requirement for a Special Land Use. This change streamlines the process for property owners seeking to develop an ADU, consistent with the Board's intent to reduce regulatory barriers.

The Planning Commission discussed whether additional standards or requirements should be introduced in light of this change and ultimately determined that no further modifications were necessary at this time.

The updated ordinance language reflecting this change is attached for the Township Board's review and consideration.

Sincerely,

CARLISLE/WORTMAN ASSOC., INC.
Paul Montagno, AICP
Principal

CARLISLE/WORTMAN ASSOC., INC.
Grayson Moore
Community Planner

SECTION 1 MODIFY SECTION 2.02 TO AMEND DWELLING, ACCESSORY DEFINITION

Dwelling, Accessory (ADU): A supplemental, smaller dwelling unit either developed within an existing single-family house such as a basement, attic, or as an attached addition, only to be occupied by family members as defined in this ordinance.

SECTION 2 ADD ATTACHED ACCESSORY DWELLING UNITS TO SECTION 4.05 PERMITTED ACCESSORY USES WITH CONDITIONS

SECTION 4.05 PERMITTED ACCESSORY USES WITH CONDITIONS.

A. Roadside Stands.

In agricultural districts each farm may have one (1) temporary roadside stand for the purpose of selling produce raised or produced on that farm in the course of its permitted agricultural activity. The stand shall be located and constructed to meet the following requirements:

- 1) The structure shall not be more than one (1) story in height.
- 2) The floor area shall not exceed 400 square feet for farms having forty (40) acres or less in area, and farms in excess of forty (40) acres may increase the floor area at the rate of 100 square feet for each additional ten (10) acres of area.
- 3) The stand shall be located no closer than forty (40) feet from the nearest highway pavement or other traveled surface. In no case, shall the stand occupy any part of the right-of-way.

B. Mobile homes and trailer homes. Trailer coaches or mobile homes may be permitted as accessory dwellings to a permanent dwelling under the following circumstances:

- 1) The parcel of land shall be used for agricultural production, and shall not be less than eighty (80) acres in area.
- 2) The occupants of a said trailer shall qualify by being either:
 - a) in direct family relationship to the principal dwelling, or
 - b) a bona fide employee of the occupant of the principal dwelling, and engaged in an agricultural occupation on the premises.
- 3) The permit for such use shall terminate at such time as any of the above conditions shall cease to be met. In any case, the permit must be renewed each year, on the anniversary of its initial issue.
- 4) All mobile homes and travel trailers shall be located within the appropriate setback lines, and, in no case, shall be located in the front yard of the principal dwelling.

C. The rearing and housing of horses, mules and similar domestic animals.

1) The rearing and housing of horses, mules, and similar domestic animals for noncommercial purposes shall be subject to the Michigan Right to Farm Act, Public Act No. 93 of 1981 (MCL 286.471).

D. Rural Kennels subject to Section 14.44

E. Interior or Attached Accessory Dwelling Units subject to requirements listed in Section 14.10 Accessory Building as Dwelling.

SECTION 3 ADD ATTACHED ACCESSORY DWELLING UNITS TO SECTION 6.05 PERMITTED ACCESSORY USES WITH CONDITIONS

SECTION 6.05 PERMITTED ACCESSORY USES WITH CONDITIONS.

- A. Roadside stands for existing agricultural land uses in conformance with the provisions of Section 4.05A.
- B. Private swimming pools for use as a part of single family dwellings in conformance with the provisions of Section 14.25.
- C. The rearing and housing of horses, mules and similar domestic animals.
 - 1) The rearing and housing of horses, mules or similar domestic animals, for noncommercial purposes shall be in accordance with the Michigan Right to Farm Act, Public Act 93 of 1981 (MCL 286.471)
- D. Interior or Attached Accessory Dwelling Units subject to requirements listed in Section 14.10 Accessory Building as Dwelling.

SECTION 4 ADD PROVISIONS FOR ATTACHED ACCESSORY DWELLING UNITS TO SECTION 14.10 ACCESSORY BUILDING AS DWELLING

No building or structure on the same lot with a principal building shall be used for dwelling purposes, except as outlined below or otherwise specifically permitted in this Ordinance.

- A. Accessory Dwelling Units (ADU's)
 - 1) The ADU and single-family dwelling together shall be in a direct family relationship to the principal dwelling.
 - 2) An ADU must be located within the appropriate setback lines of the corresponding zoning district.
 - 3) The floor area of an ADU shall be no more than 1,000 square feet
 - 4) An ADU shall adhere to the lot coverage requirements of the corresponding zoning district.
 - 5) ADUs are permitted to have an additional entrance point or to share a common entrance point with the principal building.

- 6) The ADU shall be designed so that the appearance of the building will remain that of a single-family dwelling. The ADU shall not distract from the appearance of the lot as a place of one (1) residence and shall be aesthetically compatible in appearance with other single-family dwellings in the immediate area based on architectural design and exterior materials.
- 7) Upon the construction of an ADU, there shall be a combined off-street parking for a minimum of four (4) automobiles for the parcel. An ADU shall not be permitted to have a separate driveway.
- 8) Leasing or renting an ADU is not permitted.
- 9) The Principal Dwelling Unit and the ADU must share common water, septic, and electric facilities, in compliance with state and county codes.
- 10) The applicant shall submit the following information for administrative review by the Zoning Administrator:
 - i. A plot plan showing the location of the proposed accessory dwelling unit, lot identification (address and property number), size of lot, dimension of lot lines, existing improvements on the lot, location of structures on adjacent lots, abutting streets, driveways, and parking areas.
 - ii. A mechanism or legal instrument that memorializes that the ADU cannot be rented must be recorded within the chain of title for the property and reviewed by the Township Attorney prior to approval of the permit.

**HOWELL TOWNSHIP
LIVINGSTON COUNTY, MICHIGAN
ZONING ORDINANCE AMENDMENT**

ORDINANCE NO. ____

At a regular meeting of the Township Board of Howell Township, Livingston County, Michigan, held at 3525 Byron Rd., Howell, Michigan 48855 on the 14th day of July, 2025, at 6:30 P.M., Township Board Member _____ moved to adopt the following Ordinance, which motion was seconded by Township Board Member _____:

An ordinance to amend the Zoning Ordinance of Howell Township; to amend Articles IV, VI, and XIV to allow Accessory Dwelling Units, to provide for severability and repealer of any ordinances inconsistent herewith.

HOWELL TOWNSHIP ORDAINS AS FOLLOWS:

SECTION 1. AMENDMENT TO THE HOWELL TOWNSHIP ZONING ORDINANCE TO ARTICLE IV, AR AGRICULTURAL-RESIDENTIAL DISTRICT: The Howell Township Zoning Ordinance shall be amended to read as follows:

ARTICLE IV

AR – AGRICULTURAL – RESIDENTIAL DISTRICT

Section 4.05 – PERMITTED ACCESSORY USES WITH CONDITIONS

A. Roadside Stands.

In agricultural districts each farm may have one (1) temporary roadside stand for the purpose of selling produce raised or produced on that farm in the course of its permitted agricultural activity. The stand shall be located and constructed to meet the following requirements:

- 1) The structure shall not be more than one (1) story in height.
- 2) The floor area shall not exceed 400 square feet for farms having forty (40) acres or less in area, and farms in excess of forty (40) acres may increase the floor area at the rate of 100 square feet for each additional ten (10) acres of area.
- 3) The stand shall be located no closer than forty (40) feet from the nearest highway pavement or other traveled surface. In no case, shall the stand occupy any part of the right-of-way.

B. Mobile homes and trailer homes. Trailer coaches or mobile homes may be permitted as accessory dwellings to a permanent dwelling under the following circumstances:

- 1) The parcel of land shall be used for agricultural production, and shall not be less than eighty (80) acres in area.
- 2) The occupants of a said trailer shall qualify by being either:
 - a) in direct family relationship to the principal dwelling, or
 - b) a bona fide employee of the occupant of the principal dwelling, and engaged in an agricultural occupation on the premises.
- 3) The permit for such use shall terminate at such time as any of the above conditions shall cease to be met. In any case, the permit must be renewed each year, on the anniversary of its initial issue.
- 4) All mobile homes and travel trailers shall be located within the appropriate setback lines, and, in no case, shall be located in the front yard of the principal dwelling.

C. The rearing and housing of horses, mules and similar domestic animals.

- 1) The rearing and housing of horses, mules, and similar domestic animals for noncommercial purposes shall be subject to the Michigan Right to Farm Act, Public Act No. 93 of 1981 (MCL 286.471).

D. Rural Kennels subject to Section 14.44

E. Interior or Attached Accessory Dwelling Units subject to requirements listed in Section 14.10 Accessory Building as Dwelling.

SECTION 2. AMENDMENT TO THE HOWELL TOWNSHIP ZONING ORDINANCE TO ARTICLE VI, SFR – SINGLE FAMILY RESIDENTIAL DISTRICT: The Howell Township Zoning Ordinance shall be amended to read as follows:

ARTICLE VI

SFR – SINGLE FAMILY RESIDENTIAL DISTRICT

Section 6.05 – PERMITTED ACCESSORY USES WITH CONDITIONS

A. Roadside stands for existing agricultural land uses in conformance with the provisions of Section 4.05A.

B. Private swimming pools for use as a part of single family dwellings in conformance with the provisions of Section 14.25.

C. The rearing and housing of horses, mules and similar domestic animals. 1) The rearing and housing of horses, mules or similar domestic animals, for noncommercial purposes shall be in accordance with the Michigan Right to Farm Act, Public Act 93 of 1981 (MCL 286.471

D. Interior or Attached Accessory Dwelling Units subject to requirements listed in Section 14.10 Accessory Building as Dwelling.

SECTION 3. AMENDMENT TO THE HOWELL TOWNSHIP ZONING ORDINANCE TO ARTICLE XIV, SUPPLEMENTAL REGULATIONS: The Howell Township Zoning Ordinance shall be amended to read as follows:

ARTICLE XIV

SUPPLEMENTAL REGULATIONS

Section 14.10 – ACCESSORY BUILDING AS DWELLING

No building or structure on the same lot with a principal building shall be used for dwelling purposes, except as outlined below or otherwise specifically permitted in this Ordinance.

A. Accessory Dwelling Units (ADU's)

1) The ADU and single-family dwelling together shall be in a direct family relationship to the principal dwelling.

2) An ADU must be located within the appropriate setback lines of the corresponding zoning district.

3) The floor area of an ADU shall be no more than 1,000 square feet

4) An ADU shall adhere to the lot coverage requirements of the corresponding zoning district.

5) ADUs are permitted to have an additional entrance point or to share a common entrance point with the principal building.

6) The ADU shall be designed so that the appearance of the building will remain that of a single-family dwelling. The ADU shall not distract from the appearance of the lot as a place

of one (1) residence and shall be aesthetically compatible in appearance with other single-family dwellings in the immediate area based on architectural design and exterior materials.

7) Upon the construction of an ADU, there shall be a combined off-street parking for a minimum of four (4) automobiles for the parcel. An ADU shall not be permitted to have a separate driveway.

8) Leasing or renting an ADU is not permitted.

9) The Principal Dwelling Unit and the ADU must share common water, septic, and electric facilities, in compliance with state and county codes.

10) The applicant shall submit the following information for administrative review by the Zoning Administrator:

i. A plot plan showing the location of the proposed accessory dwelling unit, lot identification (address and property number), size of lot, dimension of lot lines, existing improvements on the lot, location of structures on adjacent lots, abutting streets, driveways, and parking areas.

ii. A mechanism or legal instrument that memorializes that the ADU cannot be rented must be recorded within the chain of title for the property and reviewed by the Township Attorney prior to approval of the permit.

SECTION 4. REPEAL: This Ordinance hereby repeals any ordinances in conflict herewith.

SECTION 5. SEVERABILITY: The various parts, sections and clauses of this Ordinance are declared to be severable. If any part, sentence, paragraph, section or clause is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of the Ordinance shall not be affected.

SECTION 6. SAVINGS CLAUSE: That nothing in this Ordinance hereby adopted be construed to affect any just or legal right or remedy of any character nor shall any just or legal right or remedy of any character be lost, impaired, or affected by this Ordinance.

SECTION 7. PUBLICATION AND EFFECTIVE DATE: This Ordinance is hereby declared to have been adopted by the Howell Township Board at a meeting thereof duly called and held on the 14th day of July, 2025, was ordered to be given publication in the manner required by law, and was ordered to be given effect as mandated by statute.

YEAS: _____
NAYS: _____
ABSENT/ABSTAIN: _____

HOWELL TOWNSHIP:

BY: _____
Sue Daus, Clerk

ADOPTED: _____
PUBLISHED: _____
EFFECTIVE: _____

CERTIFICATION

I, Susan Daus, the Clerk of Howell Township, Livingston County, Michigan, do hereby certify that the foregoing is a true and complete copy of Ordinance No. _____, adopted by the Howell Township Board at a regular meeting held on July 14, 2025.

The following members of the Township Board were present at that meeting:

The Ordinance was adopted by the Township Board with _____ members of the Board voting in favor and _____ members voting in opposition. Notice of adoption and publication of the Ordinance was published in the _____ on _____, 2025. The Ordinance shall be effective on _____, 2025, seven (7) days after publication.

By: _____
Susan Daus, Township Clerk

8A



Carlisle | Wortman
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

TO: Howell Township Planning Commission

FROM: Paul Montagno, AICP, Principal
Grayson Moore, Planner

DATE: May 20, 2025

RE: Landscaping Yard in the NSC District Text Amendment

The Township received two requests to amend the permitted uses in the Neighborhood Services Commercial (NSC) zoning district in the Howell Township Zoning Ordinance. Specifically, the requests were to allow "Landscaping Yards" and heating and cooling service shops as Permitted Principal Uses within the NSC District. The applicant for landscaping yards noted that the retail sale of gardening and landscaping supplies and associated outdoor material storage are not currently permitted uses within the district. It is unclear if the applicant is petitioning for a contractors yard for a single provider or a yard that would sell equipment and materials to contractors or customers or both. Based on the intent of the district, we believe that a wholesale supplier to other contractors is not invited in this district.

The 2023 Master Plan identifies the NSC District with the Commercial-Local future land use designation, which is intended to support smaller-scale commercial activities that serve the surrounding neighborhoods. As noted in the Master Plan, appropriate uses within this district include small-scale retail, personal service establishments, small offices, and low-intensity local contractors such as plumbers, electricians, and similar service providers. The intent is to permit uses that do not create nuisances for adjacent residential or commercial properties. Both of the proposed uses would appear to fit within this statement.

In response to the applications, draft zoning text has been prepared which aligns with the goals of the 2023 Master Plan. The proposed language would permit retail and wholesale sales associated with local contractors and service providers in trades such as plumbing, electrical, construction, HVAC, appliance repair, gardening, and landscaping. The language provided is intended to allow for the proposed use while limiting the intensity to protect neighboring residential uses. Any storage of materials outside of a permitted structure must

*Benjamin R. Carlisle, President John L. Enos, Vice President Douglas J. Lewan, Principal
David Scurto, Principal Sally M. Elmiger, Principal R. Donald Wortman, Principal Craig Strong, Principal
Paul Montagno, Principal, Megan Masson-Minock, Principal, Laura Kreps, Principal
Richard K. Carlisle, Past President/Senior Principal*

be clearly proposed as part of the site plan and is subject to review and approval by the Planning Commission. All outdoor storage areas must be fully screened from public view and adjacent properties through the use of appropriate fencing, landscaping, or other screening measures.

The Planning Commission is asked to review the proposed text amendment and provide a recommendation to the Township Board, or suggestions for revision.

We look forward to discussing this matter further and receiving your direction at the upcoming meeting.

Sincerely,



CARLISLE/WORTMAN ASSOC., INC.
Paul Montagno, AICP
Principal



CARLISLE/WORTMAN ASSOC., INC.
Grayson Moore
Community Planner

SECTION 1 MODIFY SECTION 9.02 TO INCLUDE LOCAL CONTRACTORS AND SERVICE PROVIDERS AS A PERMITTED PRINCIPAL USE IN THE NSC DISTRICT.

Section 9.02 PERMITTED PRINCIPAL USES.

The following uses are permitted as long as the use is conducted completely within an enclosed building **unless stated otherwise**:

- A. Retail establishments; including those selling groceries, meats, bakery products, fruits, vegetables, delicatessen foods, drugs and sundries, hardware goods, gifts, dry goods, notions, clothing, wearing apparel, shoes and boots.
- B. Restaurants; except that food is not permitted to be consumed in parked vehicles on premises.
- C. Service establishments; including medical, dental, veterinary, financial, hair cutting and hair dressing, millinery, dressmaking, tailoring, shoe repairing, fine arts studios, laundry and dry cleaning and household and personal equipment repair shops.
- D. Vehicle service and repair facilities for automobile and light trucks, however specifically excluding body shops.
- E. **Offices and shops for local contractors and service providers such as those in the plumbing, electrical, construction, HVAC, appliance, gardening, and landscaping trades, including retail sales of parts, equipment, and supplies, and outdoor storage subject to the standards in Section 14.46.**

SECTION 2 MODIFY SECTION 9.05 TO ALLOW FOR OUTDOOR STORAGE IN SPECIFIC CIRCUMSTANCES

- A. Lot area. Minimum of one (1) acre, except where a lot or parcel is served by a public or common water supply system and a public wastewater sewer and treatment system, in which use of the lot or parcel may have a minimum area of 10,000 square feet. Neighborhood Shopping Centers shall meet the requirements of Article XVI, "Special Uses" for a collective grouping of two (2) or more of the uses permitted in this District.
- B. Lot width. Minimum of 150 feet at building setback line when on-site well water supply and septic tank wastewater disposal systems are used or a minimum of 80 feet at building setback line when public or common water supply and wastewater sewerage and treatment systems are directly accessible to the lot or parcel.
- C. Lot coverage. Maximum of 60%.
- D. Yard and setback requirements.
 - 1) Front yard. Minimum of thirty-five (35) feet from the road or highway right-of-way line, or as specified Section 26.05, whichever is greater.
 - 2) Side yards. Minimum of ten (10) feet for one (1) side yard, but a minimum total of twenty-five (25) feet for both side yards.
 - 3) Rear yard. Minimum of fifty (50) feet.
- E. Height limitations. Maximum of two (2) stories or thirty (30) feet, except that a detached accessory structure shall not exceed 20 feet.
- F. Locational and other requirements.
 - 1) The site shall have at least one (1) property line abutting a major road or highway arterial.
 - 2) All vehicular access shall be from a Livingston County Road Commission or Michigan Department of Transportation approved driveway intersection with a road or highway, which may include the use of acceleration and/or deceleration lanes, tapered lanes, or a frontage access road located parallel and adjacent to a major road or highway arterial in conformance with Section 26.04.
 - 3) The storage of goods or materials is not permitted outside of the principal structure **unless otherwise specified in Section 9.02.**

SECTION 3 ADD SECTION 14.46 TO INCLUDE STANDARDS FOR LOCAL CONTRACTORS AND SERVICE PROVIDERS AS A PERMITTED PRINCIPAL USE.

Section 14.46. Local Contractor Establishments

Intent. The intent of this section is to permit and regulate low-intensity offices, shops, storage yards, and retail sales operations for local contractors—such as those in the plumbing, electrical, construction, HVAC, appliance repair, gardening, and landscaping trades—as well as similar service providers.

The following rules shall apply to contractor's establishments:

1. Retail sales of parts, equipment, and supplies commonly associated with the business shall be incidental to the principal use with no more than 25% of the floor area dedicated to retail sales.
2. No overhead doors are permitted to face the roadway. Overhead doors shall be screened from view from neighboring residential and commercial properties.
3. All vehicles and equipment associated with the business shall be parked behind the building and not within any setback.
4. No outdoor storage shall be permitted in the front yard.
5. Outdoor storage shall not be located in any required setback.
6. Any storage of materials outside of the permitted structure must be proposed as part of the site plan and approved by the Planning Commission. Such storage of materials must be screened from public view and adjacent properties by a solid wall or fence which is no less high than the material being stored, and no greater than twelve (12) feet in height unless stated otherwise in this Ordinance. Chain link fences with slats or mesh are not permitted screening methods.

DRAFT

**HOWELL TOWNSHIP PLANNING COMMISSION
REGULAR MEETING MINUTES**

3525 Byron Road Howell, MI 48855

May 27, 2025

6:30 P.M.

MEMBERS PRESENT:

Wayne Williams	Chair
Robert Spaulding	Vice Chair
Mike Newstead	Secretary
Tim Boal	Board Representative
Chuck Frantjeskos	Commissioner
Matt Stanley	Commissioner
Sharon Lollo	Commissioner

MEMBERS ABSENT:**Also in Attendance:**

Township Planner Grayson Moore, Steve Schimpke from Schafer Construction, Lucas Driesenga from PEA Group, Patrick Keough from Ace Civil Engineering, and Zoning Administrator Jonathan Hohenstein,

Chairman Williams called the meeting to order at 6:30 pm. The roll was called. Chairman Williams requested members rise for the Pledge of Allegiance.

APPROVAL OF THE AGENDA:

Motion by Frantjeskos, **Second** by Newstead, “**Motion to approve.**” Motion carried.

APPROVAL OF THE MEETING MINUTES:

April 22, 2025

Motion by Spaulding, **Second** by Boal, “**Move to approval.**” Motion carried.

Call to the Public

None

ZONING BOARD OF APPEALS REPORT:

Minutes are in packet.

TOWNSHIP BOARD REPORT:

Draft minutes are included in the packet and Board Representative Boal gave an update. The Wellhead Protection ordinance in the Overly District was approved, budget meeting, Deputy Zoning and Deputy Assessing duties have changed and resolution to censure Trustee Wilson was passed.

ORDINANCE VIOLATION REPORT:

Report in packet. Commissioner Lollo questioned violation of Haslock properties.

Scheduled Public Hearing:

A. Ron Bergman, PC2025-07, 4706-20-100-023, 4590 W. Grand River Ave., Request for text amendment to Section 9 NSC Zoning District- to be more permissive for contractor buildings including HVAC companies.

Motion by Boal, **Second** by Newstead, “**To open the public hearing.**” Motion carried. Planner Moore gave an update that the Township received two requests to amend the permitted uses in the

Neighborhood Services Commercial (NSC) zoning district in the Howell Township Zoning Ordinance. The request was to allow Landscaping Yards and heating and cooling service shops. The 2023 Master Plan does permit these uses in the NSC zoning district with the proposed draft zoning text that has been prepared. Board Representative Boal questioned minimum setbacks on rear and front lot lines. **Motion** by Lollo, **Second** by Boal, **"Move to close."** Motion carried.

- B. Douglas Parks, PC2024-08, 4706-35-300-009, 1356 Mason Rd., Request for text amendment to Section 9 NSC Zoning District- to include landscaping yards. Planner Moore discussed that landscaping is not noted in the Future Land Use NSC zoning district but believes it would be appropriate. The applicant provides lawn care, snowplow, and landscaping services. Storage of materials outside of a permitted structure must be included on the site plan and approved by the Planning Commission. Outdoor storage must be screened from public view and adjacent properties. Board Representative Boal questioned if the site plan will still need to go in front of the Planning Commission for approval after the text amendment passes. Commissioner Lollo questioned if they were selling landscaping products to the public. Applicant Doug Parks gave an overview of what his plan is for the property. They are not planning on being a landscape center. Chairman Williams questioned the scale of the drawing and driveway placement. Discussion followed. **Motion** by Newstead, **Second** by Stanley, **"So moved to close the public hearing"** Motion carried. **Motion** by Spaulding, **Second** by Lollo, with friendly amendments **"Move for the Planning Commission to recommend for the Howell Township Board to amend section 9.02 of our Howell Township Zoning Ordinance to 1.) Allow heating and cooling service/shop as a permitted use in the NSC Zoning as well as 2.) Include a text amendment to include landscaping yard within the service establishment also in Section 9.02 in the permitted principal uses and also to include in my motion to accept the changes in Section 14.46 and Section 9.05."** Motion carried.
- C. Mark Juett, PC2025-06, PC2025-10, 4706-28-100-071, Vacant Hydraulic Dr., Special Land Use Request to Allow RV Storage and Preliminary Site Plan Review- Planner Moore gave an update that the applicant has stated that he is intending to develop an area that provides storage for boats, RVs, trucks, and small contractors. Per Section 12.03 of the Howell Township Zoning Ordinance any storage of recreational vehicles in the Industrial Flex Zone requires a Special Land Use Permit. **Motion** by Boal, **Second** by Newstead, **"To open the public hearing reference PC2025-06, PC2025-10, Parcel # 4706-28-100-071."** Motion carried. Applicant Mark Juett addressed previous concerns with the site plan. He spoke on: eliminate the limitation on storage containers that can be placed on the property, using asphalt millings throughout the site, the screening/fencing of the property. Board Representative Boal had concerns with contractor storage, no trash receptacle on site, staffing to control regulations and placing storage containers in a uniform placement. Commissioner Lollo questioned if shipping containers are provided at their other locations and the continuity of the storage containers. Vice Chair Spaulding questioned the landscaping/plantings that are in certain areas on site, run off issues with non-pervious surfaces, height of the fence around the site, how to enforce amount of storage containers that are allowed on property and time limit on permits for storage containers. Commissioner Frantjeskos questioned the depth of asphalt millings and concerns with large trucks driving over them. Discussion followed. Planner Moore spoke on possible amendment of portable storage container ordinance to allow for additional regulations.

Doug Parks, 3040 Brighton Rd- Spoke on possibility of evergreen tree placement to be used for screening in front of property

Motion by Boal, **Second** by Newstead, **"To close the public hearing."** Motion carried. **Motion** by Newstead, **Second** by Frantjeskos, with friendly amendments **"Based on the information provided by the applicant, staff, and consultants following a public hearing conducted by the Planning**

Commission on May 27, 2025, the Planning Commission finds the application for a Special Land Use Permit and Preliminary Site Plan for Juett Outdoor Storage, PC2025-06 located at Parcel #4706-28-100-071 meets the standards for the Special Land Uses in Section 16.06 and Preliminary Site Plan Review in Section 20.06 and recommends approval to the Township Board. The commission finds that:

- A) No additional parking spaces are required B) The hard surface paving requirements are waived and asphalt millings of 8-12" in depth will be used. Approval is subject to A) The applicant provides three additional shrubs along Hydraulic Drive C) The applicant provides 2 additional shrubs along the storm water management basin D) The applicant addresses the outstanding items in the Howell Area Fire Department report dated April 1, 2025." Motion carried 5-2.**

Other Matters to be Reviewed by the Planning Commission:

None

BUSINESS ITEMS:

A. Old Business:

- 1. Mitch Harris Building Company, PC2025-02, Parcel # 4706-28-400-012, Preliminary Site Plan Review. Planner Moore gave an update on additional information and concerns that were noted during April's meeting. Chairman Williams questioned decks exceeding past setbacks. Engineer Patrick Keough from Ace Civil Engineering answered questions and discussed landscaping plans. Commissioner Lollo questioned if the driveway would be asphalt or concrete. Board Representative Boal questioned if a drainage agreement with River Downs complex was addressed, if sidewalks would be present along Grand River Ave., the natural preservation area and screening along the single family residential area on the North-East side of Grand River. Discussion followed. **Motion by Frantjeskos, Second by Boal, "Based on the information provided by the applicant, staff, and consultants, the Planning Commission finds the application for Preliminary Site Plan approval for the Mitch Harris Building Co. River Downs Development PC2025-02, located at parcel #4706-27-300-030, meets the standards for preliminary site plans in Section 20.06. Approval is subject to the following conditions: 1.) The applicant addresses the outstanding items in the Spicer Group report dated April 25, 2025 2.) The applicant addresses any outstanding items listed in the Chief Deputy Drain Commissioner's email dated April 24, 2025 3.) The applicant provides landscape planting plans in accordance with Section 20.06 prepared by a registered Landscape Architect 4.) All sheets submitted be combined into one site plan package for final approval 5.) Decks are reconfigured to meet the required side setback." Motion carried.****
- 2. Agape City Church, PC2025-11, Parcel # 4706-28-400-012, Final Site Plan Review. Planner Moore gave an update on the plan. There are no outstanding items that need to be addressed for planning or zoning but recommended leaving mature trees located East of the proposed building. Steve Schimpke from Schafer Construction and Lucas Driesenga from PEA Group answered questions. Board Representative Boal questioned a future second building and second driveway to Durant Drive. Commissioner Lollo questioned traffic study and Fishbeck Traffic Engineer reviewed the study that was completed. Discussion followed. **Motion by Newstead, Second by Lollo, "Based on the information provided by the applicant, staff and consultants, the Planning Commission finds the application for Final Site Plan approval for the Agape City Church****

PC2025-11, located at parcel # 4706-28-400-012, meets the standards for final site plans in section 20.07.” Motion carried

3. Renewable Energy Ordinance- Mark Fosdick, Supervisor of Cohoctah Township spoke on their experiences within their Township and answered questions from the Commission relating to Public Act 233, crafting an ordinance, battery storage systems and environmental concerns. Planner Moore gave an update on edits that were made to the proposed ordinance. Discussion followed. **Motion** by Boal, **Second** by Newstead **“To postpone until our next meeting the Renewable Energy Discussion.”** Motion carried.

CALL TO THE PUBLIC:

John Mills, 1750 Oak Grove Rd.- Spoke on solar farms and developers

ADJOURMENT:

Motion by Boal, **Second** by Frantjeskos, **“To Adjourn.”** Motion carried. The meeting was adjourned at 10:15 P.M.

Date

Mike Newstead
Planning Commission Secretary

Marnie Hebert
Recording Secretary



Livingston County Department of Planning

June 19, 2025

Scott Barb
AICP, PEM
Director

Robert A. Stanford
AICP, PEM
Principal Planner

Martha Haglund
Principal Planner

Howell Township Board of Trustees
c/o Sue Daus, Clerk
3525 Byron Road
Howell, MI 48855

Re: Planning Commission Review of Ordinance Amendment Z-18-25.

Dear Board Members:

The Livingston County Planning Commission met on Wednesday, June 18, 2025, and reviewed the ordinance amendment referenced above. The County Planning Commissioners made the following recommendation:

Z-18-25 Approval. The proposed amendments are reasonable and establish sound regulations for the proposed uses.

Copies of the staff review and Livingston County Planning Commission meeting minutes are enclosed. Please do not hesitate to contact our office should you have any questions regarding county action.

Sincerely,

Scott Barb

Scott Barb

sb

Enclosures

c: Wayne Williams, Vice Chair, Planning Commission
Jonathan Hohenstein, Township Zoning Administrator

Department Information

Administration Building
304 E. Grand River Avenue
Suite 206
Howell, MI 48843-2323

(517) 546-7555
Fax (517) 552-2347

Web Site
<http://www.livgov.com>

Meeting minutes and agendas are available at:
<http://www.livgov.com/plan/agendas.aspx>



Livingston County Department of Planning

LIVINGSTON COUNTY PLANNING COMMISSION MEETING

Wednesday, June 18, 2025 – 6:30 p.m.

Administration Building, Board of Commissioners Chambers
304 East Grand River, Howell, MI 48843

Scott Barb
AICP, PEM
Director

Robert A. Stanford
AICP
Principal Planner

Martha Haglund
AICP
Principal Planner

Agenda

1. Call to Order
2. Pledge of Allegiance to the Flag
3. Roll and Introduction of Guests
4. Approval of Agenda – June 18, 2025
5. Approval of Meeting Minutes – May 21, 2025
6. Call to the Public
7. Zoning Reviews
 - A. Z-16-25: Iosco Township Text Amendments, Section 13.19 Large Solar Energy Systems (SES)
 - B. Z-17-25: Putnam Township Rezoning, Section 11, RR to RS-3 (1 acre min.)
 - C. Z-18-25: Howell Township Text Amendments Sections 9.02, 9.05, and 14.46 NSC Supplemental Regulations
8. Old Business:
9. New Business: 2026-2031 Livingston County CIP Resolution for Approval
10. Reports
11. Commissioners Heard and Call to the Public
12. Adjournment

Department Information

Administration Building
304 E. Grand River Avenue
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Web Site
<https://milivcounty.gov/planning/>

DRAFT
LIVINGSTON COUNTY PLANNING COMMISSION
MEETING MINUTES
304 E. Grand River Ave., Howell, Michigan
June 18, 2025
6:30 p.m.

PLANNING COMMISSION	
COMMISSIONERS PRESENT:	Bill Anderson Dennis Bowdoin Bill Call Matt Ikle Paul Funk Kevin Galbraith Margaret Burkholder
COMMISSIONERS ABSENT:	None
STAFF PRESENT:	Scott Barb Rob Stanford Martha Haglund Abby Carrigan
OTHERS PRESENT:	Bruce Powellson, Marion Township Tim Boal, Howell Township

1. **CALL TO ORDER:** Meeting was called to order by Planning Commissioner Anderson at 6:30 PM.
2. **PLEDGE OF ALLEGIANCE TO THE FLAG**
3. **ROLL AND INTRODUCTION OF GUESTS:** None.
4. **APPROVAL OF AGENDA:**

Commissioner Action: IT WAS MOVED BY COMMISSIONER IKLE TO APPROVE THE AGENDA DATED JUNE 18, 2025, SECONDED BY COMMISSIONER GALBRAITH.

All in favor, motion passed 7-0.

5. **APPROVAL OF PLANNING COMMISSION MEETING MINUTES:**

Commissioner Action: IT WAS MOVED BY COMMISSIONER FUNK TO APPROVE THE MINUTES, DATED MAY 21, 2025, SECONDED BY COMMISSIONER BOWDOIN.

All in favor, motion passed 7-0.

6. **CALL TO THE PUBLIC:** None.

7. ZONING REVIEWS:

A. Z-16-25: IOSCO TOWNSHIP TEXT AMENDMENTS: SECTION 13.19 LARGE SOLAR ENERGY SYSTEMS (SES)

The Iosco Township Planning Commission proposes an amendment to **Section 13.19(E)(1)** and to add a completely new **Section 13.19(H)** to the existing text of **Section 13.19 Large Solar Energy Systems** of the township zoning ordinance. The township has been working on this set of proposed amendments since November 2024, coinciding with the official implementation of Michigan Public Act 233 of 2023. The Iosco Twp Board (and PC agrees and was asked by Supervisor) wanted to make sure any potential applicants/developers or proposal(s) for large-scale solar development in the township to ensure that it is initiated at the township first. The township's current ordinance does not allow for that.

Township Recommendation: Approval. Approval. The Iosco Township Planning Commission heard public comment and recommended Approval of these zoning amendments at its May 13, 2025, Planning Commission Public Hearing.

Staff Recommendation: Approval. The proposed amendments are compliant with the regulations set forth in PA 233 of 2023 (Section 226 (8)) and therefore appears to meet the technical requirements for a Compatible Renewable Energy Ordinance (CREO) for an SES with a nameplate capacity of 50 MW or above.

For ease of clarification, Staff would suggest perhaps cross-referencing the definitions established in Section 13.19(A) Definitions, under newly proposed Section 13.19(H)(2), to better clarify to the end-user which solar energy systems these standards apply to. It may also be helpful to insert a phrase stating that for any SES under 50 MW, to refer the end-user to Section 13.19(A) Definitions, to obtain the qualifying standards for each scale of operation.

[**Example for above recommendation:** Section 13.19 (H)(2) to read as follows: "...The following standards do not apply if PA 233 of 2023 is repealed, enjoined, or otherwise not in effect, and do not apply to Large SES with a nameplate capacity of less than 50 megawatts. *For any SES less than 50 megawatts, please refer to Section 13.19(A) Definitions and subsequent relevant sections.*"]

Commissioner Discussion: Commissioner Burkholder asked if a school is considered an "Occupied Community Building" according to the proposed ordinance language. Commissioner Call noted that Iosco Township has no active school buildings in the Township. Principal Planner Stanford provided the definition of "Occupied Community Building" from PA 233.

Commission Action:

Commissioner Action: IT WAS MOVED BY COMMISSIONER CALL TO RECOMMEND APPROVAL, SECONDED BY COMMISSIONER BURKHOLDER.

Motion passed: 7-0.

B. Z-17-25: PUTNAM TOWNSHIP REZONING: RR RURAL RESIDENTIAL TO RS-3 SINGLE FAMILY RESIDENTIAL (1 acre minimum) IN SECTION 11.

Current Zoning: RR Rural Residential

Proposed Zoning: RS-3 Single Family Residential (1 acre minimum)

Section: Section 11

Township Recommendation: Approval. The proposed rezoning was approved at the May 14, 2025, public hearing. There were no major comments indicated in the draft meeting minutes of the public hearing on the proposed rezoning.

Staff Recommendation: Approval. The proposed rezoning from RR (Rural Residential) to RS-3 (1-acre minimum) is compatible with both the Putnam Township Master Plan and the Livingston County Master Plan.

Commissioner Discussion: None

Commission Action:

Commissioner Action: IT WAS MOVED BY COMMISSIONER BOWDOIN TO RECOMMEND APPROVAL SECONDED BY COMMISSIONER GALBRIATH.

Motion passed: 7-0.

**C. Z-18-25: HOWELL TOWNSHIP TEXT AMENDMENTS:
SECTION 9.02 NSC DISTRICT PERMITTED PRINCIPAL USES; SECTION 9.05 NSC
DIMENSIONAL REQUIREMENTS; SECTION 14.46 STANDARDS FOR LOCAL CONTRACTORS
AND SERVICE PROVIDERS.**

The Howell Township Planning Commission is proposing to amend several sections of the Township Ordinance to include language regarding special land uses for contractors and service providers.

Township Recommendation: Approval. The Howell Township Planning Commission recommended approval of the proposed amendments at their May 27, 2025, public hearing.

Staff Recommendation: Approval. The proposed amendments are reasonable and establish sound regulations for the proposed uses.

Commissioner Discussion: Commissioner Funk asked about the amount of contractors and service providers in the township. Commissioner Call had a grandfathering clause question. Commissioner Ikle had an on-site storage of materials question.

Commission Action:

Commissioner Action: IT WAS MOVED BY COMMISSIONER CALL TO RECOMMEND APPROVAL, SECONDED BY COMMISSIONER BURKHOLDER.

Motion passed: 7-0.

8. OLD BUSINESS: 2026-2031 LIVINGSTON COUNTY CAPITAL IMPROVEMENT PLAN - RESOLUTION FOR APPROVAL

Commission Action:

Commissioner Action: IT WAS MOVED BY COMMISSIONER FUNK TO RECOMMEND APPROVAL OF THE 2026-2031 CAPITAL IMPROVEMENT PLAN, TO BE FORWARDED TO THE LIVINGSTON COUNTY BOARD OF COMMISSIONERS FOR THEIR RECEIPT, FILING AND USE AS NECESSARY AND APPROPRIATE, SECONDED BY COMMISSIONER BOWDOIN.

Motion passed: 7-0.

9. NEW BUSINESS: None

10. REPORTS: None

11. COMMISSIONERS HEARD AND CALL TO THE PUBLIC: None

12. ADJOURNMENT:

Commissioner Action: IT WAS MOVED BY COMMISSIONER CALL TO ADJOURN THE MEETING AT 7:10 PM, SECONDED BY COMMISSIONER GALBRAITH.

Motion passed: 7-0



Livingston County Department of Planning

MEMORANDUM

Scott Barb
AICP, PEM
Director

Robert A. Stanford
AICP
Principal Planner

Martha Haglund
AICP Candidate
Principal Planner

TO: Livingston County Planning Commission and the Howell Township Board of Trustees

FROM: Scott Barb

DATE: June 10, 2025

SUBJECT: Z-18-25 Amendments to the Zoning Ordinance: Section 9.02 NSC District Permitted Principal Uses; Section 9.05 NSC Dimensional Requirements; Section 14.46 Standards for Local Contractors and Service Providers.

The Howell Township Planning Commission is proposing to amend several sections of the Township Ordinance to include language regarding special land uses for contractors and service providers. Staff has reviewed the proposed amendments for accuracy and compatibility with the existing ordinance language and offers the following summary for your review. Staff comments are written in *italic and underlined* with additions and changes to the Ordinance written in red.

Article 9, Section 9.02 Permitted Principal Uses NSC District

The following subsection (E) will be amended to read as follows:

The following uses are permitted as long as the use is conducted completely within an enclosed building **unless stated otherwise**:

(E) Offices and shops for local contractors and service providers such as those in the plumbing, electrical, construction, HVAC, appliance, gardening, and landscaping trades, including retail sales of parts, equipment, and supplies, and outdoor storage subject to the standards in Section 14.46.

Department Information

Administration Building
304 E. Grand River Avenue
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•
(517) 546-7555
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•
Web Site
milivcounty.gov

Staff comments: This is a new subsection being added to the list of permitted principal uses in the NSC District.

Article 9, Section 9.05 Dimensional Requirements, Except as Otherwise Specified

Subsection (F) (3) will be amended to read as follows:

F (3) The storage of goods or materials is not permitted outside of the principal structure **unless otherwise specified in Section 9.02.**

Staff comments: This amendment clarifies and refers to the amendment in subsection 9.02 (E).

Article 14, Section 14.46 Standards for Local Contractors and Service Providers as a Permitted Principal Use

Section 14.46 will be a new section to Article 14 and will read as follows:

Section 14.46 Local Contractor Establishments

Intent: The intent of this section is to permit and regulate low intensity offices, shops, storage yards, and retail sales operations for local contractors such as those in the plumbing, electrical, construction, HVAC, appliance repair, gardening and landscaping trades, as well as similar service providers.

The following rules shall apply to contractor's establishments:

1. Retail sales of parts, equipment, and supplies commonly associated with the business shall be incidental to the principal use with no more than 25% of the floor area dedicated to retail sales.
2. No overhead doors are permitted to face the roadway. Overhead doors shall be screened from view from neighboring residential and commercial properties.
3. All vehicles and equipment associated with the business shall be parked behind the building and not within any setback.
4. No outdoor storage shall be permitted in the front yard.
5. Outdoor storage shall not be located in any residential setback.
6. Any storage of materials outside of the permitted structure must be proposed as part of the site plan and approved by the Planning Commission. Such storage of materials must be screened from public view and adjacent properties by a solid wall or fence which is no less high than the material being stored, and no greater than twelve (2) feet in height unless stated otherwise in this Ordinance. Chain link fences with slats or mesh are not permitted screening methods.

Staff comments: The proposed amendments appear satisfactory in addressing supplemental regulations for the proposed use. The Township has a separate ordinance (Ordinance #53) that governs the storage and use of any of the associated hazardous materials relating to these local contractor uses and does not affect this new subsection in any way.

TOWNSHIP PLANNING COMMISSION RECOMMENDATION: APPROVAL. The Howell Township Planning Commission recommended approval of the proposed amendments at their May 27, 2025, public hearing.

RECOMMENDATION: APPROVAL. The proposed amendments are reasonable and establish sound regulations for the proposed uses.

**HOWELL TOWNSHIP
LIVINGSTON COUNTY, MICHIGAN
ZONING ORDINANCE AMENDMENT**

ORDINANCE NO. ____

At a regular meeting of the Township Board of Howell Township, Livingston County, Michigan, held at 3525 Byron Rd., Howell, Michigan 48855 on the 14th day of July, 2025, at 6:30 P.M., Township Board Member _____ moved to adopt the following Ordinance, which motion was seconded by Township Board Member _____:

An ordinance to amend the Zoning Ordinance of Howell Township; to amend Article IX, NSC Zoning District, to amend Article XIV, Supplemental Regulations, and to provide for severability and repealer of any ordinances inconsistent herewith.

HOWELL TOWNSHIP ORDAINS AS FOLLOWS:

SECTION 1. AMENDMENT TO THE HOWELL TOWNSHIP ZONING ORDINANCE TO ARTICLE IX, NSC - NEIGHBORHOOD SERVICE COMMERCIAL DISTRICT: The Howell Township Zoning Ordinance shall be amended to read as follows:

ARTICLE IX

NSC – NEIGHBORHOOD SERVICE COMMERCIAL DISTRICT

Section 9.02 – PERMITTED PRINCIPAL USES

The following uses are permitted as long as the use is conducted completely within an enclosed building unless stated otherwise:

- A. Retail establishments; including those selling groceries, meats, bakery products, fruits, vegetables, delicatessen foods, drugs and sundries, hardware goods, gifts, dry goods, notions, clothing, wearing apparel, shoes and boots.
- B. Restaurants; except that food is not permitted to be consumed in parked vehicles on premises.
- C. Service establishments; including medical, dental, veterinary, financial, hair cutting and hair dressing, millinery, dressmaking, tailoring, shoe repairing, fine arts studios, laundry and dry cleaning and household and personal equipment repair shops.
- D. Vehicle service and repair facilities for automobile and light trucks, however specifically excluding body shops.

- E. Offices and shops for local contractors and service providers such as those in the plumbing, electrical, construction, HVAC, appliance, gardening, and landscaping trades, including retail sales of parts, equipment, and supplies, and outdoor storage subject to the standards in Section 14.46.

Section 9.05 – DIMENSIONAL REQUIREMENTS, EXCEPT AS OTHERWISE SPECIFIED IN THIS ORDINANCE

- A. Lot area. Minimum of one (1) acre, except where a lot or parcel is served by a public or common water supply system and a public wastewater sewer and treatment system, in which use of the lot or parcel may have a minimum area of 10,000 square feet. Neighborhood Shopping Centers shall meet the requirements of Article XVI, “Special Uses” for a collective grouping of two (2) or more of the uses permitted in this District.
- B. Lot width. Minimum of 150 feet at building setback line when on-site well water supply and septic tank wastewater disposal systems are used or a minimum of 80 feet at building setback line when public or common water supply and wastewater sewerage and treatment systems are directly accessible to the lot or parcel.
- C. Lot coverage. Maximum of 60%
- D. Yard and setback requirements.
 - 1. Front yard. Minimum of thirty-five (35) feet from the road or highway right-of-way line, or as specified Section 26.05, whichever is greater.
 - 2. Side yards. Minimum of ten (10) feet for one (1) side yard, but a minimum total of twenty-five (25) feet for both side yards.
 - 3. Rear Yard. Minimum of fifty (50) feet.
- E. Height limitations. Maximum of two (2) stories or thirty (30) feet, except that a detached accessory structure shall not exceed 20 feet.
- F. Locational and other requirements.
 - 1. The site shall have at least one (1) property line abutting a major road or highway arterial.
 - 2. All vehicular access shall be from a Livingston County Road Commission or Michigan Department of Transportation approved driveway intersection with a road or highway, which may include the use of acceleration and/or deceleration lanes, tapered lanes, or a frontage access road located parallel and adjacent to a major road or highway arterial in conformance with Section 26.04.
 - 3. The storage of goods or materials is not permitted outside of the principal structure unless otherwise specified in Section 9.02.

SECTION 2. AMENDMENT TO THE HOWELL TOWNSHIP ZONING ORDINANCE TO ARTICLE XIV, SUPPLEMENTAL REGULATIONS: The Howell Township Zoning Ordinance shall be amended to read as follows:

ARTICLE XIV

SUPPLEMENTAL REGULATIONS

Section 14.46

STANDARDS FOR LOCAL CONTRACTORS AND SERVICE PROVIDERS AS A PERMITTED PRINCIPAL USE

Section 14.46 – Local Contractor Establishments

Intent: The intent of this section is to permit and regulate low intensity offices, shops, storage yards, and retail sales operations for local contractors such as those in the plumbing, electrical, construction, HVAC, appliance repair, gardening and landscaping trades, as well as similar service providers.

The following rules shall apply to contractor's establishments:

1. Retail sales of parts, equipment, and supplies commonly associated with the business shall be incidental to the principal use with no more than 25% of the floor area dedicated to retail sales.
2. No overhead doors are permitted to face the roadway. Overhead doors shall be screened from view from neighboring residential and commercial properties.
3. All vehicles and equipment associated with the business shall be parked behind the building and not within any setback.
4. No outdoor storage shall be permitted in the front yard.
5. Outdoor storage shall not be located in any residential setback.
6. Any storage of materials outside of the permitted structure must be proposed as part of the site plan and approved by the Planning Commission. Such storage of materials must be screened from public view and adjacent properties by a solid wall or fence which is no less high than the material being stored, and no greater than twelve (12) feet in height unless stated otherwise in this Ordinance. Chain link fences with slats or mesh are not permitted screening methods.

SECTION 3. REPEAL: This Ordinance hereby repeals any ordinances in conflict herewith.

SECTION 4. SEVERABILITY: The various parts, sections and clauses of this Ordinance are declared to be severable. If any part, sentence, paragraph, section or clause is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of the Ordinance shall not be affected.

SECTION 5. SAVINGS CLAUSE: That nothing in this Ordinance hereby adopted be construed to affect any just or legal right or remedy of any character nor shall any just or legal right or remedy of any character be lost, impaired, or affected by this Ordinance.

SECTION 6. PUBLICATION AND EFFECTIVE DATE: This Ordinance is hereby declared to have been adopted by the Howell Township Board at a meeting thereof duly called and held on the 14th day of July, 2025, was ordered to be given publication in the manner required by law, and was ordered to be given effect as mandated by statute.

YEAS: _____
NAYS: _____
ABSENT/ABSTAIN: _____

HOWELL TOWNSHIP:

BY: _____
Sue Daus, Clerk

ADOPTED: _____
PUBLISHED: _____
EFFECTIVE: _____

CERTIFICATION

I, Susan Daus, the Clerk of Howell Township, Livingston County, Michigan, do hereby certify that the foregoing is a true and complete copy of Ordinance No. _____, adopted by the Howell Township Board at a regular meeting held on July 14, 2025.

The following members of the Township Board were present at that meeting:

The Ordinance was adopted by the Township Board with _____ members of the Board voting in favor and _____ members voting in opposition. Notice of adoption and publication of the Ordinance was published in the _____ on _____, 2025. The Ordinance shall be effective on _____, 2025, seven (7) days after publication.

By: _____
Susan Daus, Township Clerk

8B



Cemetery Digitization Proposal

Prepared for:

Sue Daus

Pioneer & Fleming Cemeteries

Prepared by:

Jason Habing

Cemify

Project Start:

July 15th, 2025

Estimated Project Complete:

September 15th, 2025

Proposal Expires:

07-15-2025

Project Purpose

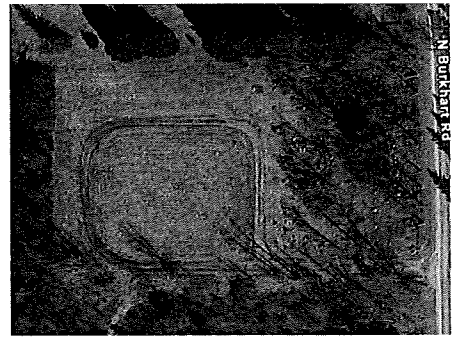
This proposal outlines a plan to convert Pioneer & Fleming Cemeteries current records and maps — which are stored in various formats and locations — into a clean, organized, cloud-based system.

Our goal is to create a lasting foundation for accurate, accessible records that will serve future generations of caretakers, preserve the cemetery's history, and provide a public website for families and the broader community.

This project both honors those who have made Pioneer & Fleming Cemeteries their final resting place and reduces the administrative burden on current and future cemetery staff.

About Pioneer & Fleming Cemeteries

Fleming and Pioneer Cemeteries are two small, one-acre cemeteries managed by Howell Township. Records have been maintained across multiple formats, and both cemeteries would benefit from centralized, interactive mapping to support staff workflows and public access.



Pioneer Cemetery, one of two cemeteries managed by Howell Township.

Materials

The cemetery has the following materials available to support mapping and record keeping:

- **Fleming Road Cemetery.pdf** – A scanned map that includes a visual layout along with an index of family lot names and detailed notes on burials
- **Pioneer Cemetery.pdf** – A scanned map outlining the layout of Pioneer Cemetery
- **Cemetery Lot Certificate template** – A Microsoft Word or PDF template used to generate certificates for plot sales

Notes / Known Challenges:

- **Lot-level mapping only** – Gravesite-level detail isn't available, so mapping will reflect lots as shown in existing materials.
- **Some uncertainty in layout** – Light tree cover and map inconsistencies may require minor adjustments during setup.
- **Unstructured records** – Burial data is handwritten and informal; township staff will assist with transcription after mapping.

Goals

- Create a complete, interactive digital cemetery map
- Set up standardized documents (e.g. purchase agreements, certificates)
- Launch a branded public website for family lookups and plot availability

Scope of Work

Cemify will support Pioneer & Fleming Cemeteries with the following services, based on the materials provided and project goals discussed.

Creating a Digital Cemetery Map

Cemify will use the provided **Fleming Road Cemetery.pdf** and **Pioneer Cemetery.pdf** files to create digital maps for each cemetery. Mapping will be done at the **lot level** (not at the level of individual gravesites), based on the layouts and notes visible in the scanned materials. For **Fleming**, the headstone-level map will not be diagrammed, as the mapping will reflect lots only.

The base map will use either publicly available satellite imagery or customer-provided imagery if available. All mapping will be geo-referenced using **WGS 84 real-world latitude and longitude coordinates** to ensure long-term accuracy and compatibility.

Labels, colors, and plot statuses will be added to show **lot availability, burials, and veterans**, where applicable. This estimate assumes that approximately **10–15% of the lots** may require adjustments during the mapping process due to layout inconsistencies or unclear areas in the source materials.

The completed maps will be hosted online and accessible from any modern device—**no special device or software required**.

Record Setup

Cemify will complete the digital mapping for each cemetery, after which **Howell Township staff will be responsible for entering burial and ownership records** into the system. This includes linking records to the correct lots, uploading documents, and managing any historical notes.

Cemify will provide **step-by-step guidance and support** to ensure records are entered clearly and consistently. While help is available throughout, township staff will be responsible for the accuracy and completeness of the data. Once entered, all records will be **searchable, editable, and securely stored**—accessible from any modern device.

Template Creation

Cemify will convert the provided **Cemetery Lot Certificate** into a digital template that automatically fills in information from your records. This will allow staff to generate ready-to-print certificates with just a few clicks. The estimate assumes only minor formatting or language adjustments will be needed to adapt the existing file.

Public Website Setup

Cemify will create a branded public website where visitors can search burial records, view grave locations on the map, and (optionally) see available plots. The site will be hosted on cemify.com under a dedicated link for your cemetery. The public site reduces calls and questions while giving families 24/7 access to grave locations and search tools.

Handoff & Training

Once setup is complete, Cemify will provide a training session to walk your team through using the system—covering maps, records, templates, and the public site. Most teams are comfortable after one session, but additional training is always available. An online help center is also available with guides and walkthroughs for common tasks.

Project Pricing Summary

The following is a flat-rate price based on the scope and materials provided. This is a one-time implementation fee covering all setup services described above. No additional fees will be incurred unless the scope changes—if that happens, we'll provide a revised quote before proceeding.

Payment will be billed in two parts: **50% upon project start**, and **50% three months later** (typically after implementation is complete, assuming timely responses from your team).

Service	Price
Creating a Digital Cemetery Map	\$3,960
Record Setup Consultation	\$495
Template Creation	\$495
Public Website Setup	\$165
Handoff & Training	\$330
Project Communication (emails, phone calls, etc.)	\$495
Estimated Total Implementation Services (one time fees)	\$5,940

Plan	Price
Cemify Management Package The Cemify Management Package includes hosting for your digital map and public website, full access to record management and document tools, and support by email or phone. It covers up to 3 users, 2,000 plots, 10GB of storage, automatic backups, software updates, and 3 hours per year of service work like map edits, template changes, or account setup.	\$999 per year

Estimated Timeline

Below is a general timeline based on current availability and the materials provided. These dates may shift slightly depending on how quickly we receive responses or additional information from your team.

Milestone	Estimated Date
Next available project start date	July 15th, 2025
Digital map delivered	4-6 weeks from project start
Document templates finalized	6-7 weeks from project start
Public website published	7-8 weeks from project start
Training and handoff	8-9 weeks from project start
Project Complete	8-9 weeks from project start (September 15th, 2025)

Note: This timeline is based on our current project calendar and may shift depending on when the agreement is approved. Delays in providing needed materials or responses may also impact timing.

Learn More About Cemify

Explore the tools, support, and customer experience that set us apart. Use the links or scan the QR codes with your mobile device. These resources are helpful for sharing with boards, staff, or anyone helping make the decision.



1-minute product walkthrough

Get a quick look at how Cemify helps you manage records, maps, and documents in one simple system.



Software & Company Information Packet

Learn more about our company, team, customer testimonials, and the features that make Cemify easy to use and effective.



Capterra Reviews

Cemify has a nearly perfect 5 star rating on Capterra by customers across the U.S.



Digital Mapping Process Video

Want to understand how our mapping works? This short video walks through the full process.



View a Sample Public Cemetery Website

See how families can search for burials, view grave locations, and explore your cemetery map online.

Agreement & Order Form

If everything looks good, you can sign below to get started. We'll confirm your spot on the calendar and guide you through the next steps.

Services

Cemetery management software and implementation services, as described in the Scope of Work section of this proposal.

Initial Service Term

Initial service term will begin upon system handoff / training call.

Implementation Services

Company will use commercially reasonable efforts to provide Customer the services described in the Scope of Work section of this proposal, hereto ("Implementation Services"), and Customer shall pay Company the Implementation Fees in accordance with the terms herein. Customer agrees to respond clearly and promptly (within 6 business days) to any questions from Company necessary to complete Implementation Services. Implementation Services are valid until January 1st, 2026 and are not refundable.

Implementation Fees

Customer will be billed a flat fee of \$5,940, split into two payments: 50% at project start and 50% three months later.

Recurring Services Fees

\$999 per year per year, payable in advance of the Initial Service Term.

SAAS Services Agreement

This SaaS Services Agreement ("Agreement") is entered into on this 19th day of June, 2025 (the "Effective Date") between Coyote Creek Digital (D/B/A Cemify) with a mailing address of P.O. Box 59, Templeton, CA 93465 ("Company"), and the Customer listed above ("Customer"). This Agreement includes and incorporates the above Order Form, as well as the attached Terms and Conditions and contains, among other things, warranty disclaimers, liability limitations and use limitations. There shall be no force or effect to any different terms of any related purchase order or similar form except by a written document executed by both parties.

Customer Billing Information

Company Name:	Billing Email:
Address:	Phone:

Agreed and accepted by signatures:

Cemify

Howell Township

Full Name: Jason Habing

Full Name:

TERMS AND CONDITIONS

1. SAAS SERVICES AND SUPPORT

1.1. Subject to the terms of this Agreement, Company will use commercially reasonable efforts to provide Customer the Services. As part of the registration process, Customer will identify an administrative user name and password for Customer's Company account.

1.2. Subject to the terms hereof, Company will provide Customer with a maximum of 3 hours of total technical support per year ("Maximum Yearly Support"). Phone support time will be logged to the nearest 30 minute increment. Email support will be logged to the nearest 5 minute increment. Customer will be notified when Maximum Yearly Support has been reached. Additional support beyond the Maximum Yearly Support will be available at a rate of \$165 per hour.

2. RESTRICTIONS AND RESPONSIBILITIES

2.1 Customer will not, directly or indirectly: reverse engineer, decompile, disassemble or otherwise attempt to discover the source code, object code or underlying structure, ideas, know-how or algorithms relevant to the Services or any software, documentation or data related to the Services ("Software"); modify, translate, or create derivative works based on the Services or any Software (except to the extent expressly permitted by Company or authorized within the Services); use the Services or any Software for timesharing or service bureau purposes or otherwise for the benefit of a third; or remove any proprietary notices or labels.

2.2 Customer shall be responsible for obtaining and maintaining any equipment and ancillary services needed to connect to, access or otherwise use the Services, including, without limitation, modems, hardware, servers, software, operating systems, networking, web servers and the like (collectively, "Equipment"). Customer shall also be responsible for maintaining the security of the Equipment, Customer account, passwords (including but not limited to administrative and user passwords) and files, and for all uses of Customer account or the Equipment with or without Customer's knowledge or consent.

3. CONFIDENTIALITY; PROPRIETARY RIGHTS

3.1 Each party (the "Receiving Party") understands that the other party (the "Disclosing Party") has disclosed or may disclose business, technical or financial information relating to the Disclosing Party's business (hereinafter referred to as "Proprietary Information" of the Disclosing Party). Proprietary Information of Company includes non-public information regarding features, functionality and performance of the Service. Proprietary Information of Customer includes non-public data provided by Customer to Company to enable the provision of the Services ("Customer Data"). The Receiving Party agrees: (i) to take reasonable precautions to protect such Proprietary Information, and (ii) not to use (except in performance of the Services or as otherwise permitted herein) or divulge to any third person any such Proprietary Information. The Disclosing Party agrees that the foregoing shall not apply with respect to any information after five (5) years following the disclosure thereof or any information that the Receiving Party can document (a) is or becomes generally available to the public, or (b) was in its possession or known by it prior to receipt from the Disclosing Party, or (c) was rightfully disclosed to it without restriction by a third party, or (d) was independently developed without use of any Proprietary Information of the Disclosing Party or (e) is required to be disclosed by law.

3.2 Customer shall own all right, title and interest in and to the Customer Data, as well as any data that is based on or derived from the Customer Data and provided to Customer as part of the Services. Company shall own and retain all right, title and interest in and to (a) the Services and Software, all improvements, enhancements or modifications thereto, (b) any software, applications, inventions or other technology developed in connection with Implementation Services or support, and (c) all intellectual property rights related to any of the foregoing.

3.3 Notwithstanding anything to the contrary, Company shall have the right to collect and analyze data and other information relating to the provision, use and performance of various aspects of the Services and related systems and technologies (including, without limitation, information concerning Customer Data and data derived therefrom), and Company will be free (during and after the term hereof) to (i) use such information and data to improve and enhance the Services and for other development, diagnostic and corrective purposes in connection with the Services and other Company offerings, and (ii) disclose such data solely in aggregate or other de-identified form in connection with its business. No rights or licenses are granted except as expressly set forth herein.

4. PAYMENT OF FEES

4.1 Customer will pay Company the then applicable fees described in the Order Form for the Services and Implementation Services in accordance with the terms therein (the "Fees"). Company reserves the right to change the Fees or applicable charges and to institute new charges and Fees at the end of the Initial Service Term or then current renewal term, upon thirty (30) days prior notice to Customer (which may be sent by email). Company agrees not to increase annual Services Fees from one term to the next by an amount greater than the most recent annual United States inflation rate or 10%, whichever is higher. If Customer believes that Company has billed Customer incorrectly, Customer must contact Company no later than 60 days after the closing date on the first billing statement in which the error or problem appeared, in order to receive an adjustment or credit. Inquiries should be directed to Company's customer support department at support@cemify.com.

4.2 Company may choose to bill through an invoice, in which case, full payment for invoices issued in any given month must be received by

Company thirty (30) days after the mailing date of the invoice. Unpaid amounts are subject to a finance charge of 0.5% per month on any outstanding balance, or the maximum permitted by law, whichever is lower, plus all expenses of collection and may result in termination of Service after fifteen (15) days written notice.

5. TERM AND TERMINATION

5.1 Subject to earlier termination as provided below, this Agreement is for the Initial Service Term as specified in the Order Form, and shall be automatically renewed for additional periods of the same duration as the Initial Service Term (collectively, the "Term"), unless either party requests termination to the other party, in writing, at least thirty (30) days prior to the end of the then-current term.

5.2 In addition to any other remedies it may have, either party may also terminate this Agreement upon thirty (30) days' written notice (or upon fifteen (15) days notice in the case of nonpayment), if the other party materially breaches any of the terms or conditions of this Agreement. Customer will pay in full for the Services up to and including the last day on which the Services are provided. Upon any termination, Company will make all Customer Data available to Customer for electronic retrieval for a period of ninety (90) days, but thereafter Company may, but is not obligated to, delete stored Customer Data.

5.3 All sections of this Agreement which by their nature should survive termination will survive termination, including, without limitation, accrued rights to payment, confidentiality obligations, warranty disclaimers, and limitations of liability.

6. WARRANTY AND DISCLAIMER

Company shall use reasonable efforts consistent with prevailing industry standards to maintain the Services in a manner which minimizes errors and interruptions in the Services and shall perform the Implementation Services in a professional and workmanlike manner. Services may be temporarily unavailable for scheduled maintenance or for unscheduled emergency maintenance, either by Company or by third-party providers, or because of other causes beyond Company's reasonable control, but Company shall use reasonable efforts to provide advance notice in writing or by e-mail of any scheduled service disruption. However, Company does not warrant that the Services will be uninterrupted or error free; nor does it make any warranty as to the results that may be obtained from use of the Services. EXCEPT AS EXPRESSLY SET FORTH IN THIS SECTION, THE SERVICES AND IMPLEMENTATION SERVICES ARE PROVIDED "AS IS" AND COMPANY DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT AND ALL WARRANTIES ARISING FROM COURSE OF DEALING, USAGE, OR TRADE PRACTICE. WITHOUT LIMITING THE FOREGOING, NEITHER PARTY MAKES A WARRANTY OF ANY KIND THAT THE PRODUCTS AND SERVICES, DOCUMENTATION AND OTHER PRODUCTS, INFORMATION, MATERIALS AND SERVICES PROVIDED OR RESULTS OF THE USE THEREOF, WILL MEET A PARTY'S OR OTHER PERSONS' REQUIREMENTS, OPERATE WITHOUT INTERRUPTION, ACHIEVE ANY INTENDED RESULT, BE COMPATIBLE OR WORK WITH ANY SOFTWARE, SYSTEMS, OR OTHER SERVICES, OR BE SECURE, ACCURATE, COMPLETE, FREE OF HARMFUL CODE OR ERROR FREE. NEITHER PARTY WILL HAVE THE RIGHT TO MAKE OR PASS ON ANY REPRESENTATION OR WARRANTY ON BEHALF OF THE OTHER TO ANY THIRD PARTY.

7. LIMITATION OF LIABILITY

NOTWITHSTANDING ANYTHING TO THE CONTRARY, EXCEPT FOR BODILY INJURY OF A PERSON, COMPANY AND ITS SUPPLIERS (INCLUDING BUT NOT LIMITED TO ALL EQUIPMENT AND TECHNOLOGY SUPPLIERS), OFFICERS, AFFILIATES, REPRESENTATIVES, CONTRACTORS AND EMPLOYEES SHALL NOT BE RESPONSIBLE OR LIABLE WITH RESPECT TO ANY SUBJECT MATTER OF THIS AGREEMENT OR TERMS AND CONDITIONS RELATED THERETO UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER THEORY: (A) FOR ERROR OR INTERRUPTION OF USE OR FOR LOSS OR INACCURACY OR CORRUPTION OF DATA OR COST OF PROCUREMENT OF SUBSTITUTE GOODS, SERVICES OR TECHNOLOGY OR LOSS OF BUSINESS; (B) FOR ANY INDIRECT, EXEMPLARY, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES; (C) FOR ANY MATTER BEYOND COMPANY'S REASONABLE CONTROL; OR (D) FOR ANY AMOUNTS THAT, TOGETHER WITH AMOUNTS ASSOCIATED WITH ALL OTHER CLAIMS, EXCEED THE FEES PAID BY CUSTOMER TO COMPANY FOR THE SERVICES UNDER THIS AGREEMENT IN THE 12 MONTHS PRIOR TO THE ACT THAT GAVE RISE TO THE LIABILITY, IN EACH CASE, WHETHER OR NOT COMPANY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

8. MISCELLANEOUS

If any provision of this Agreement is found to be unenforceable or invalid, that provision will be limited or eliminated to the minimum extent necessary so that this Agreement will otherwise remain in full force and effect and enforceable. This Agreement is not assignable, transferable or sub-licensable by Customer except with Company's prior written consent. Company may transfer and assign any of its rights and obligations under this Agreement with Customer's consent, which shall not be unreasonably withheld. This Agreement is the complete and exclusive statement of the mutual understanding of the parties and supersedes and cancels all previous written and oral agreements, communications and other understandings relating to the subject matter of this Agreement, and that all waivers and modifications must be in a writing signed by both parties, except as otherwise provided herein. No agency, partnership, joint venture, or employment is created as a result of this Agreement and Customer

does not have any authority of any kind to bind Company in any respect whatsoever. In any action or proceeding to enforce rights under this Agreement, the prevailing party will be entitled to recover costs and attorneys' fees. All notices under this Agreement will be in writing and will be deemed to have been duly given when received, if personally delivered; when receipt is electronically confirmed, if transmitted by facsimile or e-mail; the day after it is sent, if sent for next day delivery by recognized overnight delivery service; and upon receipt, if sent by certified or registered mail, return receipt requested. This Agreement shall be governed by the laws of the State of California without regard to its conflict of laws provisions.

9. COUNTERPARTS

This Agreement may be executed by original or electronic signature and in counterparts, each of which shall be deemed an original, but all of which together shall be deemed to be one and the same agreement. A signed copy of this Agreement delivered by facsimile, email or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Agreement.

10. FORCE MAJEURE

No Party shall be liable or responsible to the other Party, nor be deemed to have defaulted under or breached this Agreement, for any failure or delay in fulfilling or performing any term of this Agreement (except for any obligations to make payments to the other Party hereunder), when and to the extent such failure or delay is caused by or results from acts beyond the affected Party's reasonable control, including, without limitation: (a) acts of God; (b) flood, fire, earthquake, or explosion; (c) war, invasion, hostilities (whether war is declared or not), terrorist threats or acts, riot, or other civil unrest; (d) government order or law; (e) actions, embargoes, or blockades in effect on or after the date of this Agreement; (f) action by any governmental authority; and (g) national or regional emergency. The Party suffering a Force Majeure Event shall give notice three (3) days of the Force Majeure Event to the other Party, stating the period of time the occurrence is expected to continue and shall use diligent efforts to end the failure or delay and ensure the effects of such Force Majeure Event are minimized. If as a result of a Force Majeure Event a Party is unable to perform its obligations under this Agreement for more than six (6) months, the other Party may terminate this Agreement upon ten (10) days written Notice.

8C

Howell Township Clerk

From: David Feldpausch <DFeldpausch@livgov.com>
Sent: Thursday, June 12, 2025 11:27 AM
To: Howell Township Clerk
Cc: Amy Chapman
Subject: FW: HOWELL Township - Polling Site Agreement> 2026-2028
Attachments: EMS - 21-09-146 - HOWELL TWP - Use of Public Safety Complex as Polling Site - AMENDMENT #1 - 2026-2028 - (DJK R1) - COUNTY Signed.pdf; EMS - 21-09-146 - HOWELL TWP - Use of Public Safety Complex as Polling Site - AMENDMENT #1 - 2026-2028 - (DJK R1) - AMEND.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Attached is the Polling Site Agreement with Howell Township in a PDF format that evidences Chairman Drick's execution. Please forward to the Township for their review, signature and return.

Should they wish to make revisions, I would ask that they utilize the Track Changes feature in WORD so that all ~~deletions~~ and insertions are easily identifiable.

Thank you for your cooperation in this regard.

David Feldpausch

EMS Director
Livingston County EMS "Making THE Difference!"
1911 Tooley Rd | Howell, MI 48855-8703
Direct: (517) 540-7865 | Fax: (517) 546-6788
Cell: (517)294-1853
Email: dfeldpausch@livgov.com



From: Carol Jonckheere <CJonckheere@livgov.com>
Sent: Thursday, June 12, 2025 11:14 AM
To: David Feldpausch <DFeldpausch@livgov.com>
Subject: EMS: HOWELL Township - Polling Site Agreement> 2026-2028

Attached is the Polling Site Agreement with Howell Township in a PDF format that evidences Chairman Drick's execution. Please forward to the Township for their review, signature and return.

Should they wish to make revisions, I would ask that they utilize the Track Changes feature in WORD so that all ~~deletions~~ and insertions are easily identifiable.

Thank you for your cooperation in this regard.



CAROL SUE JONCKHEERE
EXECUTIVE ASST / CONTRACT ADMINISTRATOR
LIVINGSTON COUNTY ADMINISTRATION
#517-546-3669 / carolj@livgov.com

From: Carol Jonckheere
Sent: Wednesday, June 11, 2025 5:39 PM
To: Jay Drick <JDrick@livgov.com>; Jay R. Drick <jayrdrick@gmail.com>
Cc: David Feldpausch <DFeldpausch@livgov.com>
Subject: EMS: HOWELL Township - Polling Site Agreement> 2026-2028

Let's try this again, shall we! Attached is a revised Amendment which was modified pursuant to your email of 6/4/2025 and your conversation with Atty. Nordfjord.

Permission to execute?



CAROL SUE JONCKHEERE

EXECUTIVE ASST / CONTRACT ADMINISTRATOR

LIVINGSTON COUNTY ADMINISTRATION

#517-546-3669 / carolj@livgov.com

From: Nicole Moles <nmoles@cstmlaw.com>

Sent: Monday, June 9, 2025 11:06 AM

To: Carol Jonckheere <CJonckheere@livgov.com>

Cc: Donald Kulhanek <dkulhanek@cstmlaw.com>; Matt Nordfjord <mnordi@cstmlaw.com>

Subject: EMS: HOWELL Township - Polling Site Agreement> 2026-2028

Hi Carol,

Attached is the revised Amendment. Please see Don's comment below:

"Carol – please be advised Chairman Drick and Matt discussed indemnification and that provision will not be added."

Thanks,

Nicole A. Moles
Legal Assistant
Cohl, Stoker, & Toskey, P.C.
601 N. Capitol Ave.
Lansing, MI 48933
(517) 372-9000
nmoles@cstmlaw.com



COHL, STOKER
& TOSKEY, P.C.
MUNICIPAL LAW

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From: Jay Drick <jaydrick@gmail.com>

Sent: Wednesday, June 4, 2025 10:44 AM

To: Carol Jonckheere <CJonckheere@livgov.com>; David Feldpausch <DFeldpausch@livgov.com>; clerk@howell-mi-twp.org; clerk@howelltownshipmi.org; Nathan Burd <NBurd@livgov.com>; dkulhanek@cstmlaw.com

Subject: EMS: HOWELL Township - Polling Site Agreement> 2026-2028

Colleagues; The lease of the Public Safety complex for Howell Township elections has a deadline of Nov 2025 for amendments. A draft of such seems to only extend the term to 2028. In conference with Director Feldpausch and my authority under the 2021 Resolution, I direct our attorney to include contract language adjustments as follows. 1] clearly specify no 40 day early voting is allowed, 2. This extension is the last, tenant needs to relocate. 3. Inflation justifies a new rent of \$125 and a due date has to be explicit. 4. Under 5.2 it may imply 100 % can be used, so the word "portions ' should be inserted.. 5 Under 6.3 the duty to hold harmless, indemnify and defend the County is to be inserted. 6. Under 6,3 the tenant is to supervise and control the public/ voters and campaigners inside and outside, even beyond the " 100 foot rule" so as to not interfere with EMS/ driver visibility, vehicle ingress, egress, parking or job duties and/or public safety efforts. No signs or stakes may be near the sprinkler lines underground. Thank you, Jay R Drick Chair LivCo BOC.

On Tue, Jun 3, 2025 at 6:31 PM Carol Jonckheere <CJonckheere@livgov.com> wrote:

Attached please find the following documents with regard to the above-referenced matter:

1. Authorizing Resolution Packet, which includes Resolution #2021-09-146 and the Department Cover Memo.
2. Proposed Amendment No. 1 to Polling Place Lease Agreement.
3. Underlying Contract Packet with Howell Township.

This is an income-generating Contract and this Amendment extends the term of the Lease Agreement through November 29, 2028. Lastly, the Amendment was approved by Atty. Kulhanek of Cohl Stoker.

OK to finalize?



CAROL SUE JONCKHEERE

EXECUTIVE ASST / CONTRACT ADMINISTRATOR

LIVINGSTON COUNTY ADMINISTRATION

#517-546-3669 / carolj@livgov.com

From: Nicole Moles <nmoles@cstmlaw.com>

Sent: Tuesday, June 3, 2025 8:16 AM

To: Carol Jonckheere <CJonckheere@livgov.com>

Cc: Donald Kulhanek <dkulhanek@cstmlaw.com>

Subject: EMS: HOWELL Township - Polling Site Agreement> 2026-2028

Good morning, Carol,

Here is the Howell Township Amendment approved as to form.

Thanks,

Nicole A. Moles

Legal Assistant

Cohl, Stoker, & Toskey, P.C.

601 N. Capitol Ave.

Lansing, MI 48933

(517) 372-9000

nmoles@cstmlaw.com



COHL, STOKER
& TOSKEY, P.C
MUNICIPAL LAW

This transmission is intended to be delivered only to the named addressee(s) and may contain information that is confidential, proprietary, attorney work-product or attorney-client privileged. If this information is received by anyone other than the named addressee(s), the recipient should immediately notify the sender by E-MAIL and by telephone (517-372-9000) and obtain instructions as to the disposal of the transmitted material. In no event shall this material be read, used, copied, reproduced, stored or retained by anyone other than the named addressee(s), except with the express consent of the sender or the named addressee(s). Thank you.

From: David Feldpausch <DFeldpausch@livgov.com>

Sent: Wednesday, May 14, 2025 2:55 PM

To: Carol Jonckheere <CJonckheere@livgov.com>

Cc: Nathan Burd <NBurd@livgov.com>; Amy Chapman <ACHapman@livgov.com>

Subject: Howell Twp Polling site agreement

We met with them today and agreed to request to extend this agreement for 2 additional years thru 2028. I think I made most of the necessary edits to the word version attached.

We had numerous issues in the last couple of elections not from the township side but from the circus that follows them to the pooling site. It was very disruptive to the critical services we provide to the community to have the parking lot and drives taken over by political activist. Also, the changes in election rules require more days of use for early voting and potential recounts than when we originally approved this agreement.

Carol, please send this to legal for review and I will prepare a resolution to get board approval.

AMENDMENT NO. 1
TO
POLLING PLACE LEASE AGREEMENT

THIS AMENDMENT NO. 1, made and entered into by and between the **COUNTY OF LIVINGSTON**, a municipal corporation and political subdivision of the State of Michigan, (hereinafter referred to as "the COUNTY"), and **HOWELL TOWNSHIP**, a Michigan general law township ("Tenant" or "Township") amends the Polling Place Lease Agreement made and entered into between said parties effective November 30, 2021.

1. ARTICLE 1, Fundamental Lease Terms, Section 1.1 Fundamental Lease Terms, shall be amended to read as follows:

"Section 1.1 Fundamental Lease Terms. The terms defined in the preamble have their assigned meanings, and the fundamental lease terms set forth below have the meanings assigned to them:

- A. Building and Address: 1911 Tooley Road, Howell, MI 48855
- B. Premises: The interior and exterior spaces of the real estate described on Exhibit A attached hereto and made a part hereof, containing all improvements thereon.
- C. Term: The Term of this Lease Agreement shall commence on the 30th day of **November, 2021**, and shall expire on the 29th day of **November, 2028**.
- D. Commencement Date: November 30th, 2021.
- E. Expiration Date: 11:59 p.m. on November 29, 2028.
- F. Base Rent: \$125.00 per election (includes 3 Election Days for each election). Rent shall be paid to the County no less than thirty (30) days prior to each election.
- G. Deposit: None
- H. Notice Addresses:

LANDLORD'S ADDRESS FOR NOTICE:
LIVINGSTON COUNTY
304 E. Grand River Ave., Ste. 202
Howell, MI 48843
Attn: Nathan Burd - County Administrator

TENANT'S ADDRESS FOR NOTICE:
HOWELL TOWNSHIP CLERK
3525 Byron Road
Howell, MI 48855
Attn: Sue Daus"

2. ARTICLE 2, Lease of Building and Term, Unnumbered Section Demise, the last paragraph shall be amended to read as follows:

"This Lease is limited to the following days: Election Day, the day immediately preceding Election Day, and the day immediately succeeding Election Day (a total of 3 days for each Election Day). For example, if an election day falls on November 5, the demise herein is for November 4, 5, and 6. The purpose of the first and last day is for election delivery, set-up, clean-up, and pick-up only. Additional days may be requested, in writing, by the Township to the extent necessary to comply with the Michigan Election Law, and the Landlord shall respond to those requests in writing within two (2) business days of receipt. Notwithstanding anything else herein, the Tenant shall not conduct any election activities on the Premises during the early voting period."

3. ARTICLE 5, Miscellaneous, Section 5.2 Title, shall be amended to read as follows:

"Section 5.2 Title. The Premises and Building are the sole property of Landlord. Tenant shall have no right, title or interest in or to the Premises or Building, except for the right to possess, operate and use the portions of the Building set forth in Article 2 herein for public elections."

4. ARTICLE 6, Miscellaneous, Section 6.3 Tenant Covenants, shall be amended to read as follows:

“Section 6.3 Tenant Covenants. Tenant covenants and agrees:

- A. To use the Building in a safe, careful and lawful manner; and
- B. To keep and maintain the Building in good order and condition, to make and pay for all repairs to the Building if damages occur through Tenant’s use.
- C. Supervise and control the public, voters, and any campaign activity inside and outside the building so as to not interfere with EMS driver visibility, vehicular ingress and egress, parking, or any public safety efforts, in compliance with State law, including any activity on the Premises but outside of the 100-foot prohibition on election activity.
- D. Take reasonable precautions to avoid signs or stakes on or near sprinkler lines, and pay for any necessary repairs in the event of damage.”

5. ARTICLE 10, Miscellaneous, Section 10.1 Amendment, shall be amended to read as follows:

“Section 10.1 Amendment. This Lease may only be amended or modified by a written instrument executed by both Parties. The Lease may not be amended to extend the term to continue past November 29, 2028.”

6. All other terms and conditions contained in the above-stated Lease Agreement shall remain in full force and effect except as modified herein. This Amendment shall become effective on the date in which it is fully signed by the authorized representatives of both parties.

7. The people signing this Amendment on behalf of the parties to the Agreement certify by their signatures that they are duly authorized to sign this Amendment.

THE AUTHORIZED REPRESENTATIVES OF THE PARTIES HERETO HAVE FULLY EXECUTED THIS AMENDMENT NO. 1 TO THE POLLING PLACE LEASE AGREEMENT ON THE DATES AND IN THE SPACES SET FORTH BELOW.

COUNTY OF LIVINGSTON

HOWELL TOWNSHIP

BY:


JAY R. DRICK, CHAIRMAN
COUNTY BOARD OF COMMISSIONERS

Dated: 6/12/2025

BY: _____

(Signature)

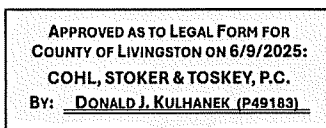
Name: _____

(Print or Type)

Title: _____

(Print or Type)

Dated: _____



\\cstde\company\Client\Livingston\Ambulance (EMS)\Agreements\Howell Twp - Polling Site\EMS - 21-09-146 - HOWELL TWP - Use of Public Safety Complex as Polling Site - AMENDMENT - 2026-2028 - AGT (approved).docx

X:\WP\Contracts\Agreements\WORD Agts\EMS - 21-09-146 - HOWELL TWP - Use of Public Safety Complex as Polling Site - AMENDMENT #1 - 2026-2028 - (DJK R1) - AMEND.docx

8D



3121 E. Grand River Howell, MI 48843
517.546.4836 fax 517.548.1670
www.bosseng.com

Calculation of REU's for the proposed Wrangler's Saloon

Updated 6-10-2025

Introduction

The proposed Wrangler's Saloon Restaurant/Bar at 4020 West Grand River Road Howell, Michigan is planned for 250 seats. Per the Howell township Sewer Ordinance one REU (residential Equivalent Unit) is defined as 218 gallons per day. The following calculations are intended to demonstrate that actual water usage will be less than the Township REU standards and correspondingly Wrangler's seeks a reduction in the REU assessment.

Methodology

Five (5) similar Restaurants/Bars in the Howell and regionals area were analyzed to determine daily water usage. These include (1) Applebee's located at 3949 East Grand River Avenue, (2) Buffalo Wild Wings located at 900 South Latson Road, (3) Tomato Brothers located at 3030 West Grand River Avenue, (4) The Log Cabin, 5393 East Grand River Avenue, and (5) The New Hudson Inn, 5800 Grand River Avenue, New Hudson.

Water billing information from the calendar year of 2024 was obtained from MHOG and/or the restaurants owner for the 5 restaurants. The number of days in each billing cycle were calculated and divided into the billing period water use in thousand gallons. The low, average, and high numbers are presented. Irrigation water was excluded from the calculations.

Calculations

Applebee's (207 seats all indoor)

Low = 2,180 gal/day
Average = 2,257 gal/day
High = 2,356 gal/day

Buffalo Wild Wings (214 seats all indoor)

Low = 1,968 gal/day
Average = 2,102 gal/day
High = 2,188 gal/day

Tomato Brothers (220 seats all indoor)

Low = 3,911 gal/day
Average = 4,272 gal/day
High = 4,522 gal/day

The Log Cabin (99 seats indoor, 36 outdoor)

Low = 1,636 gal/day
Average = 1,753 gal/day
High = 1,853 gal/day

The New Hudson Inn (76 seats indoor, 52 outdoor/three-season)

Low = 1,848 gal/day

Average = 1,904 gal/day

High = 1,978 gal/day

The proposed seating capacity for the Wrangler's Saloon Restaurant/Bar is 250 seats, primarily indoor. To project the wastewater usage of the proposed restaurant, a proportion was calculated using the peak average daily water flows from each of the three (3) solely indoor representative restaurants (Applebee's, Buffalo Wild Wings, & Tomato Brothers) to be the most representative.

Two restaurants have a combination of indoor and outdoor seating. The Log Cabin has outdoor seating that is used 'in season' which is generally understood to be late-May to early-October. There are table umbrellas and some patio-type heaters. However, water usage did not appear to be significantly impacted by this available capacity and was therefore omitted from their water usage calculation. The New Hudson Inn has a significant amount of 'three-season' seating – it is under roof, has plastic sheeting around the perimeter for the colder months, and is heated. There is also a separate bar outdoors and a music stage/area. This seating is utilized much more throughout the year and therefore included in the calculations.

Applebees:

2,356 gal/day/207 seats = X gal/day/250 seats

X = 2,845 gallons per day projected maximum water use produced by Wrangler's Saloon

Buffalo Wild Wings:

2,188 gal/day/214 seats = X gal/day/250 seats

X = 2,556 gallons per day projected maximum water use produced by Wrangler's Saloon

Tomato Brothers:

4,522 gal/day/220 seats = X gal/ day/ 250 seats

X = 5,139 gallons per day projected maximum water use produced by Wrangler's Saloon

The Log Cabin:

1,853 gal/day/99 seats = X gal/ day/ 250 seats

X = 4,679 gallons per day projected maximum water use produced by Wrangler's Saloon

The New Hudson Inn:

1,978 gal/day/128 seats = X gal/ day/ 250 seats

X = 3,863 gallons per day projected maximum water use produced by Wrangler's Saloon

2,845 gallons + 2,556 gallons + 5,139 gallons + 4,679 + 3,863 = 19,082 gallons / 5 = 3,816 Projected gallons to be produced by Wrangler's Saloon per day.

Converting to REUs = 3,816 gallons/218 gallons per REU = 17.51 REUs = 18 REUs

Conclusion

Five (5) restaurant/bars in the area with very similar modes of operation to the proposed Wrangler's Saloon were evaluated per **Appendix – Recommended Methodology for Calculating the REU's for a Commercial User Not Listed**. The outcome of 18 REU's is projected for the proposed Wrangler's Saloon.



June 26th, 2025

Jonathan Hohenstein, Treasurer
Howell Township
3525 Byron Road
Howell, MI 48855

RE: Wrangler's Saloon
4020 West Grand Avenue
REU Determination

Mr. Hohenstein,

We have received and reviewed the report titled “*Calculation of REUs for the Proposed Wrangler's Saloon*,” prepared by Boss Engineering. The document is dated June 10, 2025 and was received by our office on June 12, 2025. Based on our evaluation, we offer the following comments.

The memorandum compares the proposed 250-seat Wrangler's Saloon with 2024 peak-day water-use data from five nearby restaurants and bars—Applebee's, Buffalo Wild Wings, Tomato Brothers, The Log Cabin, and the New Hudson Inn. For each comparator, the study calculates gallons per seat at peak demand, extrapolates that rate to 250 seats, and then averages the five results. The calculation yields a projected peak demand of 3,816 gpd, which equates to 18 REUs when divided by the Township standard of 218 gpd per REU. On this basis, the applicant requests that Wrangler's Saloon be assigned 18 REUs instead of the higher default for a restaurant of this size, noting that irrigation and seasonal outdoor seating were excluded from the analysis.

After reviewing the accompanying water-usage records, we found only minor calculation discrepancies, which are shown in the table below.

Table 1: Using Peak Quarter Data and Seating for REU Calculation								
	Peak Quarter Usage	Total Usage (Gallons)	Days	GPD	Seats	GPD per Seat	REU per 250 Seats	REU per 250 seats
	Per Provided Documents (1000 Gallons Used)	=Sum of Billing Units *1000 Gallons	Per Provided Documents	= Gallons / Days of Sample	Per Provided Documents	= GPD / Provided Seats	= GPD Per Seat * 250	= REU per 250 Seats / 218
Applebees	212	212000	89	2382.022472	207	11.50735494	2876.838734	13.19650796
Buffalo Wild Wings	211	211000	95	2221.052632	214	10.37875061	2594.687654	11.90223694
Tomato Brothers	407	407000	91.25	4460.273973	220	20.2739726	5068.493151	23.24996858
The Log Cabin	176	176000	95	1852.631579	99	18.71345029	4678.362573	21.46037878
The New Hudson Inn	180	180000	91.25	1972.60274	128	15.4109589	3852.739726	17.67311801
Average				2577.716679	173.6	15.25689747	3814.224368	17.49644205

The methodology used in the report differed from what is outlined in the Howell Township Sewer Ordinance. Both approaches start from the same foundation—collecting real-world water-usage data from comparable restaurants, isolating each site's peak daily demand, and converting that flow to Residential Equivalent Units (REUs) with the Township's standard 218 gpd divisor. The report even exceeds the appendix's minimum of three comparators by using five. Where the methods diverge is in the normalization step that turns those individual REU figures into a single factor for the project: the ordinance appendix expects every comparator to be expressed on a common, uniformly measurable basis of REUs per 1,000 ft² before averaging, whereas the Wrangler's Saloon study scales each restaurant's

June 26, 2025
2 of 2

peak flow by seat count and then extrapolates to 250 seats. That seat-based adjustment, together with the report's lack of detail on billing-cycle lengths (≤ 90 days per the appendix) and its mixed treatment of outdoor seating, means the resulting 18-REU recommendation follows the spirit of the appendix but not its prescribed calculation framework. However, the methodology used in the Wranglers analysis is acceptable.

In summary, the applicant's seat-based analysis is transparent, and firmly rooted in current local usage data. Given the minor nature of the methodological differences and the fact that both approaches yield an allocation well below the default 29 REUs based on the Restaurants (w/liquor license) designation in the Equivalent User Table of the Sewer Ordinance, we concur with the developer's request to assign 18 REUs to Wrangler's Saloon. We recommend approving this reduced allocation with the usual provision that the Township reserves the right to reevaluate and adjust the REU count if future metered consumption materially exceeds the projected demand.

Please contact our office if you have any questions or need additional information.

Sincerely,



Adam C. Jacqmain
Design Engineer
Phone: (989) 598-6196
adamj@spicergroup.com



Philip A. Westmoreland, P.E.
Principal
Phone: (517) 375-9449
philaw@spicergroup.com

SPICER GROUP, INC.
30300 Telegraph Rd, Suite 100
Bingham Farms, MI 48025

8E

Howell Township
Property Committee Meeting
June 25, 2025

Attending: Jeff Smith, Sue Daus, Jonathan Hohenstein, Brent Kilpela, Scott Griffith, James Tischler – State of Michigan, Megan Farkas and Barry Kemper – DA Building, Eileen Zilch and Becky Phelps – Community Catalysts

73.58 Acres – Marr Rd. & Oak Grove Rd.: The Property Committee met with Community Catalyst (Bethel Suites) and DA Building to discuss a letter of intent for the Township's 73.58-acre property on the corner of Marr and Oak Grove Roads. The offer includes some contingencies including Tax Increment Financing (TIF) Funding which I will summarize below. Attached to this report are the Letter of Intent to Purchase, a draft document from James Tischler for what a possible payback could look like for this project, and information from Community Catalysts on this project.

This project could support approximately 250 parcels if developed under current zoning, according to the developer. Additional density may be requested as they work through the site plan process. Community Catalyst and DA Building are partnering together to create a mixed income community with Community Catalyst receiving between 10 and 20% of the lots created for working class affordable housing. Community Catalysts have methods to keep the affordable houses perpetually affordable that they plan to use on this project. Due to housing costs, to make such units possible they will most likely request some smaller lots and some smaller square foot homes. If the Board is interested in such a project, there will be a lot of details to work through as it progresses. These few items are called out not to get into all of the little details, which at this time is not necessary, just to highlight that this is the first of many steps that would need to be worked through should the Board wish to proceed.

One of the major items that needs to be discussed is the developers' request to use TIF Funding to make this project work. James Tischler from the State of Michigan is scheduled to be at the Board meeting to discuss this topic in more detail than my summary will provide. TIF Funding now allows a municipality to direct taxes generated from a project back to the developer for certain eligible expenses. For this project there are several eligible expenses including: the cost of installing roads, utilities, sewer infrastructure, water infrastructure, storm water infrastructure, and parks. The Township would need to create a Brownfield Authority. Taxes will be collected as usual from the property owners but will be processed differently. The funds will be directed to the Brownfield Authority and ultimately back to the developer to cover the eligible expenses. Under the law the payback can go for as long as thirty years (if necessary) and can include up to 4% interest as part of the payback to the developer. Once the eligible expenses have been paid back to the developer or the maximum thirty-year payback window has elapsed the TIF will expire and the taxes that are collected on the subject project parcels will be disbursed to the taxing entities as normal. There are a lot of other possibilities and details go into this process, one of which is the ability to utilize the State Land Bank to help administer the project and be between the Township and the developer in this public-private partnership.

TIF Funding being used for housing projects like this is relatively new and historically Howell Township's developers have purchased property and paid for all aspects of the project at their own expense. This TIF Funding concept is completely new to Howell Township as we do not have any Brownfield properties. As the developers have told us, this financing is what will make this project viable.

The Committee did not negotiate on the purchase price due specifically to the TIF Funding request and our desire to gauge the Board's interest in the project prior to getting into the remaining details including the purchase price. However, this should not stop the Board from discussing the price as it is lower than currently listed. As other developers have brought to our attention the cost of development, especially on such a large parcel, is a hurdle to developing this parcel.

The Committee hopes that the summary of TIF Funding is the starting point for the Board's deliberations on the topic. The Committee voiced several concerns over diverting tax revenue back to the developer, especially for such a long period of time for costs that historically have been paid by the developer. The housing needs of our Township need to be considered and whether this type of project with this type of financing is a method of meeting those needs. The Board could include in their discussions what is eligible, what is an appropriate length of time, what is an appropriate percentage to be paid back. While it is not necessary to get into all of the details of the development at this stage the Board should consider if smaller lots and smaller homes is something it is willing to consider.

Respectfully submitted,
Jonathan Hohenstein

DA Building & Community Catalysts Development Company

May 27, 2025

Howell Township
3525 Byron Rd.
Howell, MI 48855

Subject: Letter of Intent to Purchase Vacant Land

Dear Howell Township,

This Letter of Intent ("LOI") sets forth the preliminary terms and conditions under which we, DA Building and Community Catalyst ("Buyer"), are interested in purchasing certain vacant land owned by you ("Seller") located at Oak Grove and E Marr Rd. Parcel ID 06-12-300-009. (the "Property").

Please note that this LOI is intended solely as a basis for further discussion and does not constitute a binding contract. A binding commitment will only result from the execution of a formal Purchase and Sale Agreement ("Agreement") to be negotiated in good faith by both parties.

1. Buyer: DA Building & Community Catalyst

2. Seller: Howell Township

3. Property: Parcel ID: 06-12-300-009 (Oak Grove and Marr Rd)

4. Purchase Price: \$1,000,000.00

5. Due Diligence Period: Buyer shall have 90 days from the date of the Agreement to conduct all inspections, surveys, and reviews of the Property.

6. Earnest Money Deposit: Buyer shall deposit \$10,000 into escrow after due diligence period is over or waived.

7. Closing Date: The closing shall occur within 30 days of all contingencies removed

8. Contingencies: This offer is contingent upon:

- **Site Plan Approval:** Buyer's ability to obtain site plan approval from the relevant municipal authorities for the intended use of the Property.

- **Tax Increment Financing (TIF) Funding:** Buyer's ability to secure approval for and receive TIF funding or incentives, if applicable, from the relevant government agency or municipality.

- **Satisfactory Review of Title and Survey:** The Property title and survey being clear of any issues that would affect the transaction.
- **Zoning and Land Use Approval:** The Property being zoned appropriately for the Buyer's intended use.
- **Environmental Inspections:** A satisfactory environmental review or environmental site assessment of the Property.

If these general terms are acceptable, I would appreciate the opportunity to begin preparing a formal Agreement. Please indicate your interest by signing below or contacting me directly to discuss the next steps.

Sincerely,

A handwritten signature in cursive script, appearing to read "Megan Farkas".

Megan Farkas
Solomon Real Estate & DA Building

TABLE ONE - DESCRIPTION OF THE ESTIMATED COSTS AND SUMMARY OF ELIGIBLE ACTIVITIES

ENVIRONMENTAL ACTIVITIES

Baseline Environmental Assessment Activities	
Phase I Environmental Site Assessment	3,000
Phase II Subsurface Investigation	
Baseline Environmental Assessment	0
Due Care Activities	
Section 7a Compliance Analysis	0
Other Environmental Activities	
TOTAL ENVIRONMENTAL	3,000

HOUSING DEVELOPMENT ACTIVITIES

	Costs	Normal	Difference
Infrastructure			
Engineering**	625,000		625,000
Water	1,400,000		1,400,000
Sanitary	900,000		900,000
Storm	360,000		360,000
Roads	2,220,000		2,220,000
Gas/Electric	160,000		160,000
Amenities	250,000		250,000
Site Preparation	1,500,000		1,500,000
Land Bank Activities			0
Plan Preparation			25,000
TOTAL HOUSING DEVELOPMENT			7,440,000

SUMMARY OF ESTIMATED COSTS OF ELIGIBLE ACTIVITIES

ENVIRONMENTAL		3,000
HOUSING DEVELOPMENT		7,440,000
TOTAL		7,443,000

TABLE THREE - ESTIMATED ALLOCATION OF ANNUAL TAX INCREMENT REVENUES

NO.	<u>Capture</u>		<u>Land Bank</u>	<u>Remaining</u>	<u>Admin/Op</u>	<u>Remaining</u>	<u>Remediation</u>	<u>Remaining</u>
	<u>Year</u>	<u>Total Capture</u>	<u>5/50</u>	<u>Balance</u>	<u>Expenses</u>	<u>Balance</u>	<u>Fund</u>	<u>Balance</u>
1	2027	106,532	----	106,532	0	106,532	0	106,532
2	2028	213,064	----	213,064	0	213,064	0	213,064
3	2029	319,596	----	319,596	0	319,596	0	319,596
4	2030	426,129	----	426,129	0	426,129	0	426,129
5	2031	432,520	----	432,520	0	432,520	0	432,520
6	2032	439,008	----	439,008	0	439,008	0	439,008
7	2033	445,593	----	445,593	0	445,593	0	445,593
8	2034	452,277	----	452,277	0	452,277	0	452,277
9	2035	459,061	----	459,061	0	459,061	0	459,061
10	2036	465,947	----	465,947	0	465,947	0	465,947
11	2037	472,937	----	472,937	0	472,937	0	472,937
12	2038	480,031	----	480,031	0	480,031	0	480,031
13	2039	487,231	----	487,231	0	487,231	0	487,231
14	2040	494,540	----	494,540	0	494,540	0	494,540
15	2041	501,958	----	501,958	0	501,958	0	501,958
16	2042	509,487	----	509,487	0	509,487	0	509,487
17	2043	517,129	----	517,129	0	517,129	0	517,129
18	2044	524,886	----	524,886	0	524,886	0	524,886
19	2045	532,760	----	532,760	0	532,760	0	532,760
20	2046	540,751	----	540,751	0	540,751	0	540,751
21	2047	548,862	----	548,862	0	548,862	0	548,862
22	2048	557,095	----	557,095	0	557,095	0	557,095
23	2049	565,452	----	565,452	0	565,452	0	565,452
24	2050	573,933	----	573,933	0	573,933	0	573,933
25	2051	582,542	----	582,542	0	582,542	0	582,542
26	2052	591,280	----	591,280	0	591,280	0	591,280
27	2053	600,150	----	600,150	0	600,150	0	600,150
28	2054	609,152	----	609,152	0	609,152	0	609,152
29	2055	618,289	----	618,289	0	618,289	0	618,289
30	2056	627,564	----	627,564	0	627,564	0	627,564
			0		0		0	

Howell Twp Act 381 Tables DRAFT 6-24-25

7,443,000

	Semi Pmt	Annual Pmt	
Principal	0	8,863,402	8,863,402
Interest	0	5,832,354	5,832,354
Totals	0	14,695,757	14,695,757



Community Catalysts

Community Catalysts, a 501c3 nonprofit, has been working for 8 years in Howell to make housing attainable for individuals and families in Livingston County.

They completed the Bethel Suites project in Howell Township in 2023 (a rehab of the former Crest Motel). Bethel Suites provides transitional housing while intensively working with guests to find and transition them into permanent housing that they can afford.

They completed 3 other projects in the City of Howell prior to completing Bethel Suites.

Community Catalysts works collaboratively with many other local organizations, including DA Building, to accomplish their mission.

DA Building

DA Building is a development company located in New Hudson that has over 30 years of experience in construction. They are a family-owned and operated business and the family resides in Livingston County. They have participated in construction projects in Michigan, across the United States and in several other countries. They have a very diverse portfolio from commercial and industrial to single family residential, PUD's, and mixed-use developments.

They recently received preliminary site plan approval in June from the City of Brighton for a 5-story apartment building with a parking structure to include public parking.

Over the last 5 years they have completed housing projects in the City of Brighton, City of Howell, Brighton Township, Village of Milford, Milford Township and Gregory.

25 Single Family Attainable Homes/225 Market Rate Homes

A representative example of what could be developed on the Marr/Oak Grove parcel

25 Attainable Homes sold by Community Catalysts:

Product: 900 square foot, 2-3 bedroom “starter home”/**Build Cost:** \$275 per square foot

Market: young people just starting out, young families, seniors

Building Cost: 900 X \$275 =	\$247,500	Smaller homes have higher cost per square foot
Land/Infrastructure cost =	<u>35,000</u>	
Direct cost	\$282,500	
Insurance/realtor fees/closing costs	<u>40,000</u>	
Total Cost	\$322,500	

Sell to people at 60% Area Median Income*: 8 homes

Income: \$54,900 per year, with local jobs including administrative, government, social services

Attainable home cost: \$147,700 home cost with an associated \$142,600 mortgage

Subsidy required per home: \$174,800 X 8 = \$1,398,400

Sell at 80% Area Median Income*: 11 homes, attainable cost \$214,500, subsidy per home of \$108,000

Sell at 100% Area Median Income*: 6 homes, attainable cost \$281,000, subsidy per home of \$41,500

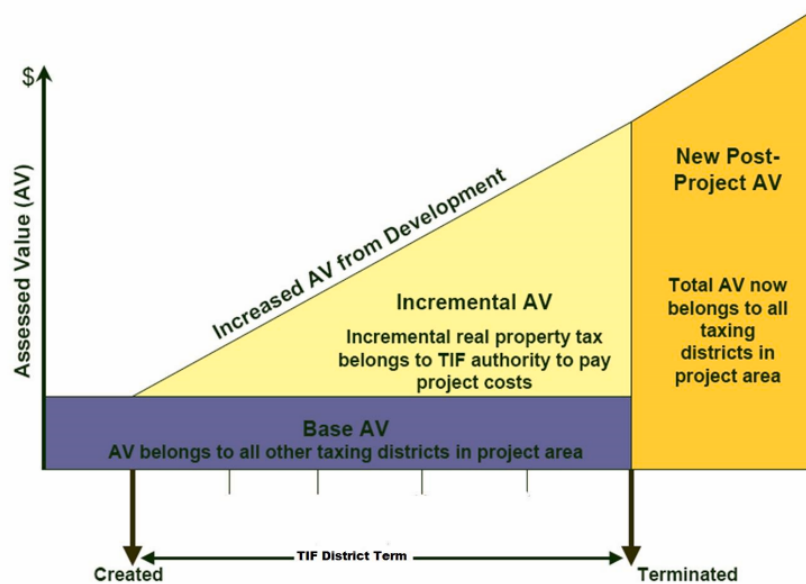
TOTAL SUBSIDY: \$2,835,400 to be raised by Community Catalysts for 25 attainable homes

*IRS guidelines for nonprofits drive the number of homes sold at the various income levels

225 Market Rate Homes developed by DA Building:

1800 square foot home, \$200 per square foot build cost plus land/infrastructure and other costs plus profit for the developer = **sales price of \$492,000**. It is unclear if the Howell market will support this selling price, as this new construction will be competing with much larger existing homes selling for this price. **Housing TIF helps the developer close the gap to make this project feasible.**

Housing TIF (Tax Increment Financing) Primer



What is a Housing TIF?

It is a reimbursement to the developer of infrastructure costs (sewer, water, gas, electric, storm water, roads) through tax revenue earned when houses are sold. The developer receives their infrastructure costs back over time (often 20-30 years). After that time, the tax revenue is earned and kept by the township.

Use of a Housing TIF in Howell Township on the Marr/Oak Grove parcel:

- Builds on the work Howell Township did several years ago to bring sewer and water to the Marr/Oak Grove site
- Activates a township-owned parcel of land that has been for sale for several years
- Provides the crucial incentive needed to bring quality homes to Howell Township
- Creates a mixed-income community, with both market rate homes (80-90%) and attainable homes (10-20%)
- Facilitates development of much-needed attainable housing that will remain perpetually affordable using either a Community Land Trust or deed restriction
- Ensures the project is completed, as the developer isn't reimbursed until houses are sold
- Creates favorable press for all entities (Township and Developer) who are collaborating on the project. This project brings attainable housing in a mixed income setting that will be perpetually affordable, using an incentive recommended in the Statewide Housing Plan.

8F



Carlisle | Wortman
ASSOCIATES, INC.

117 NORTH FIRST STREET SUITE 70 ANN ARBOR, MI 48104 734.662.2200 734.662.1935 FAX

Mike Coddington
Supervisor
Howell Township
3525 Byron Road
Howell, Michigan 48855

RE: Howell Township Park Master Plan

Dear Supervisor Coddington:

Carlisle/Wortman Associates is pleased to submit a proposal of services to prepare a park master plan for the park property near the corner of Bowen and Tooley Roads. The plan will be developed based on community input from the 2024 Recreation Master Plan, Township officials, and a community open house to be held as part of the planning process. The master plan will give Township officials a comprehensive park plan to refer to for park development and a tool for fundraising and financial planning.

We are enclosing a work plan and timeline for your review. Paul Montagno will manage the project activities and Chris Nordstrom will compile, develop, and manage the information to be included in the studies with support from other CWA staff. Our Not-to-Exceed Fee for this project is \$14,000.

We appreciate the opportunity to submit this proposal.

Signature
Paul Montagno, AICP
Principal

Signature
Chris Nordstrom, ALSA, PLA
Landscape Architect/Planner

Benjamin R. Carlisle, *President* John L. Enos, *Vice President*
Paul Montagno, *Principal* Megan Masson-Minock, *Principal* Laura Kreps, *Principal* Brent Strong, *Principal*
David Scurto, *Principal* Sally M. Elmiger, *Principal* Craig Strong, *Principal* Douglas J. Lewan, *Principal*
Richard K. Carlisle, *Past President/Senior Principal* R. Donald Wortman, *Past Principal*

Howell Township Park Master Plan Work Plan & Timeline

The object of this proposal is to develop a concept plan to help with long-range planning for the Township's new park. Additional meetings may be desired outside of the proposed project scope, and would be billed at CWA's standard hourly rates.

Tasks of the project include:

- Background gathering & site analysis
- Schematic design plan
- Public outreach and input
- Construction costs
- Final adjustments & approval

The following work plan and timeline details the tasks described above. The timeline is flexible and can be adjusted to meet the Township's needs. It is recommended that a Steering Committee comprised of representatives from the Township Board, Planning Commission, and citizen representatives be convened to lead the initial concept planning efforts.

Work Plan

1. Background Research & Site Analysis (July 2025)

- Review community input from 2024 Parks & Recreation Master Plan to determine potential desired amenities.
- Review Spicer concept plan and construction documents.
- Prepare base material using GIS and aerial data to identify features such as topography, wetlands, water courses, high quality natural areas, and other features.
- Site visit: Walk site to evaluate existing conditions and refine base maps to reflect on-the-ground conditions.
- **MEETING 1:** In-person meeting with Steering Committee (SC) to review preliminary background findings, discuss recreation center options and placement, and hone in on general recreation use and amenity zones.

2. Schematic Design Plan (July – August 2025)

- Prepare three (3) high-level concept plans which takes into account factors evaluated in the site analysis.
- **MEETING 2:** Virtual meeting with SC to receive input on preliminary designs.
- Refine concept plans per SC Comments.

3. Public Outreach and input (August – September 2025)

- **MEETING 3:** Facilitate an open house with the general public, impacted property owners, and other stakeholders to present concept plans and receive further input. Goal: Select most desired plan for further refinement.
- Meet with individual property owners in the field as necessary.
- Prepare summary of results from Open House and stakeholder meetings.
- Refine plan based on public comments.

4. Construction Costs (September 2025)

- Prepare a preliminary cost estimate which can be used for budget evaluation and preparation of grant requests.
- **MEETING 4:** Virtual meeting with SC to present semi-final design and cost estimates.
- Refine concept plan as necessary.

5. Final Adjustments & Approval (October 2025)

- Present concept plan to Board of Trustees.
- Prepare final refinements based on Trustee input.

Final work product to include electronic copy (PDF) of final plan. Plan will be produced to scale. CAD, GIS, or other work product used to produce the final plan can also be provided as desired by the Township.

Proposal accepted by:

Signature	Date
Mike Coddington	
Supervisor, Howell Township	

Signature	Date
Paul Montagno, AICP	
Principal, Carlisle/Wortman Associates, Inc.	

July 10, 2025

Jonathan Hohenstein, Treasurer
Howell Township
3525 Byron Road
Howell, Michigan 48855

Re: Park Development Concept Plan
Howell Township, Livingston County, MI
Letter Agreement for Professional Services

Dear Jonathan:

At your request we are furnishing you with a proposal to develop an overall concept plan for the Township Park located at Warner Road and Tooley Road. The following is our proposed scope and fee to provide professional services to your project.

PROJECT BACKGROUND

Howell Township wishes to create a design for a new park with amenities on 160 acres of two vacant parcels located on Tolley Road and Warner Road that the Township currently owns. The Township would like to start with preparing a concept plan for the park area to give direction for future development.

Our team will meet with the Township to get a clear understanding of the goals and desires that will influence the design of the parcels. In review of the 2024-2028 Parks and Recreation Master Plan, below are items included in the design:

- | | |
|---------------------|------------------------|
| • Paved parking | • Benches |
| • Rain gardens | • Signage |
| • Trails | • Picnic shelter |
| • Trash receptacles | • Playground equipment |

SCOPE OF SERVICES

Spicer Group's scope of professional services for this project is as follows.

1. Overall concept park plan:
 - Meet with the Township to discuss potential improvements to the park.
 - Using an aerial photo of the parcels we would begin to develop a concept plan of what the park might look like and what features it might contain.
 - Once that concept plan is in a draft format we would share it with the Township to review and discuss the conceptual plan.
 - We will make the necessary revisions to the conceptual plan based on the comments from the review meeting.
 - We will develop a Preliminary Estimate of Cost for the approved improvements and features shown on the conceptual plan.
 - We would submit our completed work to the Township for consideration.

ADDITIONAL SERVICES

Additional services related to this project will be furnished by Spicer Group after you authorize the work. Our fee for the additional services will be determined at the time they are agreed to and rendered.

FEE

We propose to do this work on a standard hourly rate basis, billing the Township only for the effort that we put toward this. We will submit monthly invoices to you for our professional services, any additional authorized services, and any reimbursable expenses. Our estimated fee for the services detail above is:

Concept Park Plan:


Standard hourly rates with an estimated fee of approximately **\$10,000.00**

We have calculated this fee based on our understanding of what you want us to do and what you have told us. Should we approach the amount of the fee for any reason before we are finished with the work, the scope changes, or our understanding was incorrect, we will notify you and discuss with you the option of adjusting the amount of the fee or adjusting the scope of services.

If this proposal meets with your approval, please acknowledge this approval with an authorized signature below and return a copy to us.

We deeply appreciate your confidence in Spicer, and we look forward to working with you and for you on your project.

Sincerely,


Cynthia A. Todd, PLA
Director of Planning


Shawn P. Middleton, P.E., CFM
Sr. Project Manager, Vice President

SPICER GROUP, INC.
230 S. Washington Avenue
Saginaw, MI 48607
Phone: (989) 754-4717 ext. 5522
Fax: (989) 754-4440
mailto: cynthia.todd@spicergroup.com

Attachments:

- General Conditions

Cc: SGI File 139006SG2025
KSC, Acctg.

Above proposal accepted and approved by Owner.

HOWELL TOWNSHIP

By: _____
Authorized Signature

Printed Name

Title

Date: _____

GENERAL CONDITIONS FOR PROFESSIONAL SERVICES

SECTION 1 - GENERAL

1.1 The Agreement. This Agreement is made by and between SPICER GROUP, INC. (hereinafter referred to as "PROFESSIONAL") and the client who accepted the attached proposal (hereinafter referred to as "CLIENT"). The Agreement between the parties consists of these General Conditions for Professional Services, as well as the attached proposal, and any exhibits or attachments noted in the proposal. Together, these items shall constitute the entire Agreement between the parties and supersedes any prior negotiations, correspondence, or agreements either written or oral. Any changes to this Agreement must be mutually agreed to in writing between the parties. CLIENT represents that it has full authority to enter into this Agreement and that the representative signing this Agreement for CLIENT has full authority to do so. CLIENT further represents that it has all right, title and interest to the project to which the services under this Agreement are being provided.

1.2 Ownership of Instruments of Service. All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by PROFESSIONAL are instruments of service and shall remain the property of PROFESSIONAL. PROFESSIONAL shall retain all common law, statutory and other reserved rights, including the copyrights thereto.

1.3 Covenant not to Hire. CLIENT agrees that during the term of this Agreement and for a period of one (1) year thereafter that it will not hire for its own employment any person employed by PROFESSIONAL.

1.4 Standard of Care. Services performed by PROFESSIONAL under this Agreement will be performed in a manner consistent with that degree of care and skill ordinarily exercised by members of the same profession currently practicing in the same locality under the same or similar conditions. PROFESSIONAL provides no warranty, guarantee or other representation, express, implied or otherwise, in connection with this Agreement, or in any report, opinion, document or other deliverable or instruments of service.

1.5 Defects in Service. CLIENT and CLIENT's personnel, contractors and subcontractors shall, upon discovery, promptly notify PROFESSIONAL in writing of any defects or deficiencies in PROFESSIONAL's services, in order that PROFESSIONAL may take measures which in PROFESSIONAL's opinion will minimize the consequences of such defect or deficiency in service. PROFESSIONAL shall not be responsible for additional costs due to delay in reporting defects in service.

1.6 Reimbursable Expenses. Reimbursable expenses mean the actual expenses incurred by PROFESSIONAL or PROFESSIONAL's independent professional associates or consultants, directly or indirectly in connection with the project, such as expenses for; transportation and subsistence incidental thereto; obtaining bids or proposals from contractor(s); providing and maintaining field office facilities including furnishings and utilities; subsistence and transportation of Resident Project Representatives and their assistants; toll telephone calls and courier services; reproduction of reports, drawings, specifications, bidding documents, and similar project-related items; and, if authorized in advance by CLIENT, overtime requiring higher than regular rates.

1.7 Standard Hourly Rates. The standard hourly rates used as a basis for payment mean those rates in effect at the time that the service is performed, for all PROFESSIONAL's personnel engaged directly on the project, including, but not limited to, architects, engineers, Spicer Group, Inc.

surveyors, designers, planners, drafters, specification writers, estimators, other technical and business personnel. The Standard Hourly Rates include salaries and wages, direct and indirect payroll costs and fringe benefits. The Standard Hourly Rates of personnel of PROFESSIONAL will be adjusted periodically to reflect changes in personnel and in PROFESSIONAL's overall compensation procedures and practices.

1.8 Limitation of Liability. In recognition of the relative risks and benefits of the project to both PROFESSIONAL and CLIENT, the risks have been allocated such that the CLIENT agrees, to the fullest extent permitted by law, and not withstanding any other provision of this Agreement, that the total liability, in the aggregate, of PROFESSIONAL and PROFESSIONAL's officers, directors, partners, employees and subconsultants, and any of them, to the CLIENT and anyone claiming by or through the CLIENT, for any and all claims, losses, costs or damages of any nature whatsoever or claims expenses from any cause or causes, including attorneys' fees, costs and expenses, shall not exceed \$10,000, or the total compensation received by PROFESSIONAL under this Agreement, whichever is greater. It is intended that this limitation apply to any and all liability or cause of action however alleged or arising, unless otherwise prohibited by law.

1.9 Indemnification. PROFESSIONAL agrees, to the fullest extent permitted by law, to indemnify and hold harmless the CLIENT, its officers, directors and employees from and against damages or liabilities, to the extent caused by the PROFESSIONAL's negligent performance of professional services under this Agreement including that of its subconsultants or anyone for whom the PROFESSIONAL is legally liable.

CLIENT agrees, to the fullest extent permitted by law, to indemnify and hold harmless the PROFESSIONAL, its officers, directors, employees and subconsultants from and against damages or liabilities, to the extent caused by CLIENT's negligent acts, errors or omissions in connection with the project as well as the acts, errors or omissions of its contractors, subcontractors or consultants or anyone for whom CLIENT is legally liable.

Neither CLIENT nor PROFESSIONAL shall be obligated to indemnify the other party in any manner whatsoever for the other party's own negligence.

1.10 Severability. Any term or provision of this Agreement found to be invalid under any applicable statute or rule of law shall be deemed omitted and the remainder of this Agreement shall remain in full force and effect.

1.11 Survival. Notwithstanding completion or termination of this Agreement for any reason, all rights, duties and obligations of the parties to this Agreement shall survive such completion or termination and remain in full force and effect until fulfilled.

1.12 Assignment. Neither party to this Agreement shall transfer, sublet or assign any rights under or interest in this Agreement (including but not limited to monies that are due or monies that may be due) without the prior written consent of the other party. Subcontracting to subconsultants normally contemplated by the PROFESSIONAL shall not be considered an assignment for purposes of this Agreement.

1.13 Betterment. In no event will the PROFESSIONAL be responsible for any cost or expense that provides betterment, upgrades,

or added value to the project, regardless of whether PROFESSIONAL or PROFESSIONAL's officers, directors, partners, employees or subconsultants is determined to have caused or contributed to such cost or expense.

1.14 Mediation. Any claims or disputes made during design, construction or after completion of the project between the CLIENT and PROFESSIONAL shall be submitted to non-binding mediation. CLIENT and PROFESSIONAL agree to include a similar mediation agreement with all contractors, subcontractors, consultants, suppliers and fabricators, thereby providing mediation as the primary method for dispute resolution between all parties. Unless otherwise agreed in writing, the mediation shall be governed by the current Construction Industry Mediation Rules of the American Arbitration Association ("AAA"). Mediation shall be a condition precedent to the initiation of any other dispute resolution process, including court actions.

1.15 Changed Conditions. If, during the term of this Agreement, circumstances or conditions that were not originally contemplated by or known to PROFESSIONAL are revealed, to the extent that they affect the scope of services, compensation, schedule, allocation of risks or other material terms of this Agreement, PROFESSIONAL may request an appropriate adjustment of this Agreement. PROFESSIONAL shall notify CLIENT of the changed conditions necessitating an adjustment, and PROFESSIONAL and CLIENT shall promptly and in good faith enter into discussions for an appropriate adjustment of this Agreement to address the changed conditions.

1.16 Hazardous Materials. Both parties acknowledge that PROFESSIONAL's scope of services does not include any services related to the presence of any hazardous or toxic materials. As such, under no circumstance shall PROFESSIONAL have any responsibility for the discovery, presence, handling, removal or disposal of, or exposure of persons to, hazardous materials or toxic substances in any form at the project site or any adjacent area that may affect the project.

1.17 Governing Law & Jurisdiction. CLIENT and PROFESSIONAL agree that this Agreement and any legal actions concerning its validity, interpretation and performance shall be governed by the laws of the State of Michigan.

SECTION 2 – FINANCIAL & USE OF DOCUMENTS

2.1 Billing and Payment Terms. *Payment Due:* Invoices shall be submitted by PROFESSIONAL (monthly) payment is due upon presentation and shall be considered past due if not paid within thirty (30) calendar days of the due date. *Interest:* If payment in full is not received by PROFESSIONAL within thirty (30) calendar days of the due date, invoices shall bear interest at one-and one-half (1.5) percent of the PAST DUE amount per month, which shall be calculated from the invoice due date. Payment thereafter shall first be applied to accrued interest and then to the unpaid principal.

2.2 Suspension of Services. If CLIENT fails to make payments when due or otherwise is in breach of this Agreement, PROFESSIONAL may elect to suspend performance of service upon ten (10) calendar days notice to CLIENT. PROFESSIONAL shall have no liability whatsoever to CLIENT for any costs or damages as a result of such suspension caused by any breach of this Agreement by CLIENT. Upon payment in full by CLIENT, PROFESSIONAL shall resume services under this Agreement, and the time scheduled and compensation shall be equitably adjusted to compensate for the period of suspension plus any other reasonable time and expenses necessary for PROFESSIONAL to resume performance.

2.3 Termination of Services. If CLIENT fails to make payment to PROFESSIONAL in accordance with the payment terms herein, this Spicer Group, Inc.

shall constitute a material breach of this Agreement and shall be cause for termination of this Agreement by PROFESSIONAL upon ten (10) calendar days' notice to CLIENT. PROFESSIONAL shall be paid in full for all services performed and expenses incurred through the date of termination upon presentment of PROFESSIONAL's final invoice. CLIENT shall have no right to withhold, back-charge or set-off against any amounts owed to PROFESSIONAL, regardless of whether the invoice or amount owed is for a monthly, suspension or termination related invoice.

2.4 Collection of Costs. In the event legal action is necessary to enforce the payment terms of this Agreement, PROFESSIONAL shall be entitled to collect from CLIENT any sums due, plus reasonable attorneys' fees, court costs and other expenses incurred by PROFESSIONAL in connection therewith and, in addition, the reasonable value of PROFESSIONAL's time and expenses spent in connection with such collection action, according to PROFESSIONAL's hourly fee schedule.

2.5 Delays. The CLIENT agrees that PROFESSIONAL is not responsible for damages arising directly or indirectly from any delays for causes beyond PROFESSIONAL's control. For purposes of this Agreement, such causes include, but are not limited to, strikes or other labor disputes; severe weather disruptions or other natural disasters; fires, riots, war or other emergencies or acts of God; failure of any government agency to act in timely manner; failure of performance by CLIENT or CLIENT's contractors or consultants; or discovery of any hazardous substances or differing site conditions.

In addition, if the delays resulting from any such causes increase the cost or time required by PROFESSIONAL to perform its services in an orderly and efficient manner, PROFESSIONAL shall be entitled to an equitable adjustment to its schedule and/or compensation.

2.6 Delivery and Use of Electronic Files. In accepting and utilizing any drawings, reports and data on any form of electronic media generated and furnished by the PROFESSIONAL, CLIENT agrees that all such electronic files are instruments of service of PROFESSIONAL, who shall be deemed the author, and shall retain all common law, statutory law and other rights, including copyrights.

CLIENT agrees not to reuse these electronic files, in whole or in part, for any purpose other than for the project. CLIENT agrees not to transfer these electronic files to others without the prior written consent of PROFESSIONAL. CLIENT further agrees to waive all claims against PROFESSIONAL resulting in any way from any unauthorized changes to or reuse of the electronic files for any other project by anyone other than PROFESSIONAL.

CLIENT and PROFESSIONAL agree that any electronic files furnished by either party shall conform to the original specifications. Any changes to the original electronic specifications by either CLIENT or PROFESSIONAL are subject to review and acceptance by the other party. Additional services by PROFESSIONAL made necessary by changes to the electronic file specifications shall entitle PROFESSIONAL to additional compensation.

Electronic files furnished by either party shall be subject to an acceptance period of fourteen (14) days during which the receiving party agrees to perform appropriate acceptance tests. The party furnishing the electronic file shall correct any discrepancies or errors detected and reported within the acceptance period. After the acceptance period, the electronic files shall be deemed to be accepted and neither party shall have any obligation to correct errors or maintain electronic files.

CLIENT is aware that differences may exist between the electronic files delivered and the printed hard-copy construction documents. In the event of a conflict between the signed construction documents prepared by PROFESSIONAL and electronic files, the signed or sealed hard-copy construction documents shall govern.

In addition, CLIENT agrees, to the fullest extent permitted by law, to defend, indemnify and hold harmless PROFESSIONAL, its officers, directors, employees and subconsultants from and against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, arising from any changes made to the electronic file by anyone other than PROFESSIONAL or from any reuse of the electronic files without the prior written consent of PROFESSIONAL.

Under no circumstances shall delivery of electronic files for use by CLIENT be deemed a sale by PROFESSIONAL, and PROFESSIONAL makes no warranties, either expressed or implied, of merchantability and/or fitness for any particular purpose. In no event shall PROFESSIONAL be liable for indirect or consequential damages as a result of CLIENT's use or reuse of the electronic files.

2.7 Opinions of Probable Construction Costs. In providing opinions of probable construction cost, CLIENT understands that PROFESSIONAL has no control over the cost or availability of labor, equipment or materials, or over market conditions or the contractor's method of pricing, and that PROFESSIONAL's opinions of probable construction costs are made on the basis of PROFESSIONAL's judgment and experience. PROFESSIONAL makes no warranty, express or implied that the bids or the negotiated cost of any construction work will not vary from PROFESSIONAL's opinion of probable construction costs.

SECTION 3 – PROJECT PERFORMANCE

3.1 Design Without Construction Administration. Unless Authorized, it is understood and agreed that PROFESSIONAL's Basic Services under this Agreement do not include project observation or review of the contractor's performance or any other construction phase services, and that such services will be arranged by CLIENT. CLIENT assumes all responsibility for interpretation of the Contract Documents and for construction observation, and CLIENT waives any claims against PROFESSIONAL that may be in any way connected thereto.

3.2 Record Drawings. If authorized by the Agreement, upon completion of the construction work, PROFESSIONAL shall compile for and deliver to CLIENT a reproducible set of Record Documents based upon the marked-up record drawings, addenda, change orders and other data furnished by the contractor. These Record Documents will show significant changes made during construction. Because these Record Documents are based on unverified information provided by other parties, which PROFESSIONAL is entitled to rely upon, PROFESSIONAL cannot and does not warrant or make any other representation as to the accuracy of the Record Documents.

3.3 Contingency Fund. CLIENT and PROFESSIONAL agree that certain increased cost and changes may be required because of possible errors, omissions, ambiguities or inconsistencies in the drawings and specifications prepared by PROFESSIONAL and, therefore, that the final construction cost of the project may exceed the estimated construction cost and/or the cost of the work in any construction contract. CLIENT agrees to set aside a minimum reserve in the amount of not less than 10 percent of the project construction costs as a contingency to be used, as required, to pay for any such increased costs and changes. CLIENT further agrees to make no claim directly or through any other party against PROFESSIONAL or its subconsultants with respect to any increased costs within the contingency because of such Spicer Group, Inc.

changes or because of any claims made by the contractor relating to such changes.

3.4 Lenders' Requirements. PROFESSIONAL shall not be required to execute any documents subsequent to the signing of this Agreement that in any way might, in the sole judgment of PROFESSIONAL, increase PROFESSIONAL's contractual or legal obligations or risks, or adversely affect the availability or cost of its professional or general liability insurance.

3.5 Client Requested Substitutions. Upon request by CLIENT, PROFESSIONAL shall evaluate and make recommendations regarding substitutions of materials, products or equipment proposed by CLIENT's consultants or contractors. PROFESSIONAL shall be compensated for these services, as well as any services required to modify and coordinate the construction documents prepared by PROFESSIONAL with those of PROFESSIONAL's subconsultants and CLIENT's consultants, as additional services. PROFESSIONAL also shall be entitled to an adjustment in schedule caused by this additional effort.

3.6 Certifications, Guarantees and Warranties. PROFESSIONAL shall not be required to sign any documents, no matter by whom requested, that would result in PROFESSIONAL having to certify, guarantee or warrant the existence of conditions whose existence the PROFESSIONAL cannot ascertain. CLIENT also agrees not to make resolution of any dispute with PROFESSIONAL or payment of any amount due to PROFESSIONAL in any way contingent upon PROFESSIONAL's signing any such certification.

3.7 Underground Improvements. If requested, PROFESSIONAL and/or its subconsultants will provide services to conduct research that, in its professional opinion, is necessary and will prepare a plan indicating the locations for subsurface penetrations with respect to assumed locations of existing underground improvements. Such services by PROFESSIONAL and/or its subconsultant will be performed in a manner consistent with PROFESSIONAL'S professional standard of care. CLIENT understands and recognizes, however, that such research may not identify all underground improvements and that the information upon which PROFESSIONAL reasonably relies may contain errors or may be incomplete. Therefore, CLIENT agrees, to the fullest extent permitted by law, to waive all claims and causes of action against the Consultant and anyone for whom the Consultant may be legally liable for damages to underground improvements resulting from subsurface penetrations in locations established by PROFESSIONAL that are based on properly filed and available records of said underground improvements.

3.9 Permits and Approvals. PROFESSIONAL shall assist CLIENT in applying for those permits and approvals normally required by law for projects similar to the one for which PROFESSIONAL's services are being engaged. This assistance shall consist of completing and submitting forms to the appropriate regulatory agencies having jurisdiction over the construction documents, and other services normally provided by PROFESSIONAL and included in the scope of services of this Agreement.

3.10 Jobsite Safety. Neither the professional activities of PROFESSIONAL, nor the presence of PROFESSIONAL or its employees and subconsultants at a construction/project site, shall relieve the contractor of its obligations, duties and responsibilities including, but not limited to, construction means, methods, sequence, techniques or procedures necessary for performing, superintending and coordinating the construction work in accordance with the contract documents and any health or safety precautions required by any regulatory agencies. PROFESSIONAL and its personnel have no

authority to exercise any control over any construction contractor or its employees in connection with their work or any health or safety programs or procedures. CLIENT agrees that the contractor shall be solely responsible for jobsite safety and warrants that this intent shall be carried out in CLIENT's contract with the contractor. CLIENT also agrees that its contract with the contractor shall provide that CLIENT, PROFESSIONAL, and PROFESSIONAL's subconsultants shall be indemnified by the contractor and shall be made additional insureds under the contractor's policies of general liability insurance.

3.11 Construction Observation. PROFESSIONAL shall visit the site, if requested and authorized, at intervals appropriate to the stage of construction, or as otherwise agreed to in writing by CLIENT and PROFESSIONAL, to generally observe the construction work and answer any questions that CLIENT may have. However, PROFESSIONAL shall not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the construction work, or to determine whether the construction work is being constructed in accordance with the contract documents. If CLIENT desires PROFESSIONAL to perform more frequent or comprehensive observations of the construction work, this Agreement shall be amended to specifically state the additional scope of service, along with the additional compensation to be paid to PROFESSIONAL for performing such service.

PROFESSIONAL shall not supervise, direct or have control over the contractor's work nor have any responsibility for the construction means, methods, techniques, sequences or procedures selected by the contractor nor for the contractor's safety precautions or programs in connection with the construction work. These are solely the obligation and responsibility of the contractor.

PROFESSIONAL shall not be responsible for any acts or omissions of the contractor, subcontractor, any entity performing any portions of the construction work, or any agents or employees of any of them. PROFESSIONAL shall not be responsible for the contractor's failure to perform its work in accordance with the contract documents, the construction documents, or any applicable laws, codes, rules or regulations.

3.12 Verification of Existing Conditions. Inasmuch as the remodeling and/or rehabilitation of existing structures requires that certain assumptions be made by PROFESSIONAL regarding existing conditions, and because some of these assumptions may not be verifiable without CLIENT expending substantial sums of money or destroying otherwise adequate or serviceable portions of the structure, CLIENT agrees to bear all costs, losses and expenses, including the cost of any necessary additional services of PROFESSIONAL, arising from the discovery of concealed or unknown conditions in any existing structures that are part of the project and PROFESSIONAL'S scope of service.

3.13 Construction Layout. If requested by CLIENT, or other authorized party, as detailed in the scope of services or as an additional service to this Agreement, PROFESSIONAL shall provide construction layout stakes sufficient for construction purposes. The stakes will reflect pertinent information from the construction bidding and contract documents. The stakes shall be set in place one time by PROFESSIONAL, staged and scheduled as requested by the contractor. After the stakes are set, it shall be the contractor's exclusive responsibility to protect the stakes from damage or removal. Once the stake is set, if the stake becomes unusable due to the contractor's negligence it shall be reset by PROFESSIONAL at the direction of CLIENT. The cost for resetting the stakes shall be paid to PROFESSIONAL by CLIENT.

3.14 Right of Entry. If applicable to the scope of services, CLIENT shall provide for PROFESSIONAL's right to enter from time to time property owned or controlled by CLIENT and/or other(s) in order for PROFESSIONAL to fulfill the scope of services indicated hereunder. CLIENT understands that use of testing or other equipment may unavoidably cause some damage, the correction of which is not the responsibility of PROFESSIONAL.

3.15 Buried Utilities. If applicable to the scope of services, CLIENT will furnish to PROFESSIONAL information identifying the type and location of utility lines and other man-made objects beneath the site's surface. PROFESSIONAL will take reasonable precautions to avoid damaging these man-made objects and will, prior to penetrating the site's surface furnish to CLIENT a plan indicating the locations intended for these penetrations with respect to what PROFESSIONAL has been told are the locations of utilities and other man-made objects beneath the site's surface. CLIENT will approve the location of these penetrations prior to their being made and will authorize PROFESSIONAL to proceed.

3.16 Third-Party Beneficiaries. Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the CLIENT or PROFESSIONAL. PROFESSIONAL'S services under this Agreement are being performed solely for CLIENT'S benefit, and no other party or entity shall have any claim against PROFESSIONAL because of this Agreement or the performance or nonperformance of services hereunder.

3.17 Waiver of Consequential Damages. CLIENT and PROFESSIONAL waive consequential damages for claims, disputes or other matters in question arising out of or relating to this Agreement. This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination or suspension of this Agreement.

3.18 Contractor Submittals. If requested, PROFESSIONAL shall review contractor's submittals such as shop drawings, product data and samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the plan and specifications issued by PROFESSIONAL. Review of such submittals is not for the purpose of determining the accuracy and completeness of other information such as dimensions, quantities, and installation or performance of equipment or systems, which are the contractor's responsibility. PROFESSIONAL's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by PROFESSIONAL, of any construction means, methods, techniques, sequences or procedures. PROFESSIONAL's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

3.19 Project Information. PROFESSIONAL shall be entitled to rely on the accuracy and completeness of services and information furnished by CLIENT, including services and information provided by other design professionals or consultants directly to CLIENT. These services and information include, but are not limited to, surveys, tests, reports, diagrams, drawings and legal information.

SECTION 4 – MODIFICATIONS TO THE GENERAL CONDITIONS

4.1 None.

10B

Park and Rec Investments					
Vehicle	Amount	Start Date	End Date	Rate	Interest Earned
90 day CD	\$100,000.00	8/27/2024	11/25/2024	1.60%	\$394.52
120 day CD	\$200,000.00	8/27/2024	12/25/2024	1.80%	\$1,183.56
180 Day CD	\$400,000.00	8/27/2024	2/23/2025	4.65%	\$9,172.60
365 Day CD	\$500,000.00	8/27/2024	8/27/2025	4.45%	
90 Day CD	\$100,000.00	11/25/2024	2/23/2025	4.40%	\$1,084.93
119 Day CD	\$200,000.00	12/30/2024	4/28/2025	4.20%	\$2,738.63
90 Day CD	\$100,000.00	2/25/2025	5/25/2025	4.20%	\$1,058.87
119 Day CD	\$400,000.00	2/25/2025	6/23/2025	4.20%	\$5,477.26
119 Day CD	\$200,000.00	4/28/2025	8/25/2025	4.20%	
119 Day CD	\$100,000.00	5/27/2025	9/23/2025	4.00%	
119 Day CD	\$400,000.00	6/23/2025	10/20/2025	4.00%	

General Fund Investments					
Vehicle	Amount	Start Date	End Date	Rate	Interest Earned
90 Day CD	\$100,000.00	8/27/2024	11/25/2024	1.60%	\$394.52
120 Day CD	\$300,000.00	8/27/2024	12/25/2024	1.80%	\$1,775.34
180 Day CD	\$700,000.00	8/27/2024	2/23/2025	4.65%	\$16,052.05
365 Day CD	\$1,900,000.00	8/27/2024	8/27/2025	4.45%	
90 Day CD	\$100,000.00	11/25/2024	2/23/2025	4.40%	\$1,084.93
119 Day CD	\$300,000.00	12/30/2024	4/28/2025	4.20%	\$4,107.95
90 Day CD	\$100,000.00	2/25/2025	5/25/2025	4.20%	\$1,058.87
119 Day CD	\$700,000.00	2/25/2025	6/23/2025	4.20%	\$9,585.21
119 Day CD	\$300,000.00	4/28/2025	8/25/2025	4.20%	
119 Day CD	\$100,000.00	5/27/2025	9/23/2025	4.00%	
119 Day CD	\$700,000.00	6/23/2025	10/20/2025	4.00%	

10D

Monthly Permit List

07/01/2025

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ADDRESS ASSIGNMENT

Permit #	Applicant	Address	Fee Total	Const. Value
PA23-008	HOWELL TOWNSHIP	1961 MOLLY LANE	\$0.00	\$0.00
Work Description: PUMP STATION LOCATED ON THE CONNER OF MOLLY LANE AND UNION GROVE ROAD, SOUTH OF HENDERSON ROAD AND WEST OF OAK GROVE ROAD.				

Total Permits For Type:	1
Total Fees For Type:	\$0.00
Total Const. Value For Type:	\$0.00

Commercial Land Use

Permit #	Applicant	Address	Fee Total	Const. Value
P25-111	PAUL ANTHONY HOMES	W HIGHLAND	\$250.00	\$0.00
Work Description: Grading of land around building #12 and the soil erosion controls for this work.				
P25-130	AT & T MOBILE & T	4353 OAK GROVE RD	\$250.00	\$0.00
Work Description: Remove and replace antennas on existing cell tower				

Total Permits For Type:	2
Total Fees For Type:	\$500.00
Total Const. Value For Type:	\$0.00

Grading

Permit #	Applicant	Address	Fee Total	Const. Value
P25-114	MI HOMES OF MICHIGAN LLC A DELAWARE LIMITED LIABILITY COMPANY	BURKHART - VACANT	\$250.00	\$0.00
Work Description: Phase I - Heritage Square- Site prep, grubbing, silt fence, clearing				

Total Permits For Type:	1
Total Fees For Type:	\$250.00
Total Const. Value For Type:	\$0.00

MHOG

Permit #	Applicant	Address	Fee Total	Const. Value
PMHOG24-028	ABSOLUTE PLUMBING CHRIS MCGRATH	3735 AMBER OAKS DR	\$0.00	\$0.00
Work Description: 1" irrigation meter				
PMHOG24-032	STAMPER & SONS	39 CASTLEWOOD DR	\$0.00	\$0.00
Work Description: 1" meter horn				
PMHOG24-031	HAWLEY JOHN BURTON	2424 FISHER RD	\$0.00	\$0.00
Work Description: 1' meter package - NOT PICKED UP				
PMHOG24-021	OPERATING ENGINEERS LOCAL 324	275 E HIGHLAND RD	\$0.00	\$0.00

Work Description:

PMHOG25-001	ANDREW JOHNSON	675 E HIGHLAND	\$0.00	\$0.00
Work Description:				
PMHOG24-023	JAC PROPERTY ENTERPRISES LLC	1100 W HIGHLAND	\$0.00	\$0.00
Work Description:				
PMHOG24-026	Spray Masters	3087 IVY WOOD CIR	\$0.00	\$0.00
Work Description:				
PMHOG24-030	UNION AT OAK GROVE	1826 MOLLY LANE	\$0.00	\$0.00
Work Description:				
PMHOG24-007	PINEVIEW VILLAGE CONS. GROUP INC.	1682 PINECROFT LANE	\$0.00	\$0.00
Work Description:				
PMHOG24-008	PINEVIEW VILLAGE CONS. GROUP INC.	1684 PINECROFT LANE	\$0.00	\$0.00
Work Description:				
PMHOG24-020	PINEVIEW VILLAGE CONS. GROUP INC.	1685 PINECROFT LANE	\$0.00	\$0.00
Work Description:				
PMHOG24-019	PINEVIEW VILLAGE CONS. GROUP INC.	1687 PINECROFT LANE	\$0.00	\$0.00
Work Description:				
PMHOG24-018	PINEVIEW VILLAGE CONS. GROUP INC.	1689 PINECROFT LANE	\$0.00	\$0.00
Work Description:				
PMHOG24-017	PINEVIEW VILLAGE CONS. GROUP INC.	1691 PINECROFT LANE	\$0.00	\$0.00
Work Description:				
PMHOG24-015	PINEVIEW VILLAGE CONS. GROUP INC.	1695 PINECROFT LANE	\$0.00	\$0.00
Work Description:				
PMHOG24-014	PINEVIEW VILLAGE CONS. GROUP INC.	1697 PINECROFT LANE	\$0.00	\$0.00
Work Description:				
PMHOG24-013	PINEVIEW VILLAGE CONS. GROUP INC.	1699 PINECROFT LANE	\$0.00	\$0.00
Work Description:				
PMHOG24-024	DABKOWSKI STEPHEN AND LAUREN	3742 WARNER RD	\$0.00	\$0.00
Work Description: 1" Irrigation Meter				

Total Permits For Type:	18
Total Fees For Type:	\$0.00
Total Const. Value For Type:	\$0.00

Residential Land Use

Permit #	Applicant	Address	Fee Total	Const. Value
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P25-116	BILLING WHITE ROOFING LLC	1730 BYRON RD	\$10.00	\$0.00
	Work Description: R & R 1 layer shingles on entire house			
P25-113	CUSTOM DECK CREATIONS	2212 BYRON RD	\$50.00	\$0.00
	Work Description: Demo existing back deck (587 sq ft) and side deck (185 sq ft) and install new Trex composite back deck (571 sq ft) and side deck (147 sq ft)			
P25-129	WIERMAN PAUL	1251 CRESTWOOD LN	\$10.00	\$0.00
	Work Description: Adding mezzanine (stairs to new upstairs storage area), electric, and heat to existing pole barn.			
P25-127	Michael Chosid	1051 ELLINGTON DR	\$0.00	\$0.00
	Work Description: New mobile home installation			
P25-124	Michael Chosid	1052 ELLINGTON DR	\$0.00	\$0.00
	Work Description: New mobile home installation			
P25-126	Michael Chosid	1055 ELLINGTON DR	\$0.00	\$0.00
	Work Description: New mobile home installation			
P25-118	FOX JEFFREY AND MOSSOIAN CHANTAL	5235 FISHER RD	\$10.00	\$0.00
	Work Description: Fill dirt and grading in two spots			
P25-110	MR. ROOF ANN ARBOR, LLC	3451 FLEMING RD	\$10.00	\$0.00
	Work Description: Tear off and re-roof for house only			
P25-115	SMOLYANOV HOME IMPROVEMENTS LLC	4478 GRAPE VINE DR	\$10.00	\$0.00
	Work Description: Tear off and re-roof on house and detached shed			
P25-125	Michael Chosid	4431 RAMSBURY DR	\$0.00	\$0.00
	Work Description: New mobile home installation			
P25-121	Michael Chosid	1031 RIVER LINE DR	\$0.00	\$0.00
	Work Description: New mobile home installation			
P25-120	Michael Chosid	1035 RIVER LINE DR	\$0.00	\$0.00
	Work Description: New Mobile Home Installation			
P25-109	SUPERIOR CUSTOM HOMES	1056 RIVER LINE DR	\$50.00	\$0.00
	Work Description: 10 x 10 treated wood deck on rear of home			
P25-119	SUPERIOR CUSTOM HOMES	1080 RIVER LINE DR	\$50.00	\$0.00
	Work Description: 8' x 18' Trex deck on front of home and 12' x 24' treated wood deck on rear of home.			
P25-122	Michael Chosid	1024 WELLESLEY DR	\$0.00	\$0.00
	Work Description: New mobile home installation			
P25-123	Michael Chosid	1028 WELLESLEY DR	\$0.00	\$0.00
	Work Description: New mobile home installation			
P25-117	NORTHGATE CONSTRUCTION	1072 WILLOW LN	\$10.00	\$0.00
	Work Description: Tear off and re-roof house and attached garage			
P25-128	Michael Chosid	4417 WILLOWBANK DRIVE	\$0.00	\$0.00
	Work Description: New mobile home installation			

Total Permits For Type:	18
Total Fees For Type:	\$210.00
Total Const. Value For Type:	\$0.00

Sewer Connection

Permit #	Applicant	Address	Fee Total	Const. Value
PWS25-078	Michael Chosid	1051 ELLINGTON DR	\$2083.33	\$0.00
	Work Description: Sewer connection			
PWS25-072	Michael Chosid	1052 ELLINGTON DR	\$2083.33	\$0.00
	Work Description: Sewer connection			
PWS25-076	Michael Chosid	1055 ELLINGTON DR	\$2083.33	\$0.00
	Work Description: Sewer connection			
PWS25-062	STREAMLINE DEVELOPMENT	3110 OAK GROVE RD	\$5000.00	\$0.00
	Work Description: one sewer hook up			
PWS25-074	Michael Chosid	4431 RAMSBURY DR	\$2083.33	\$0.00
	Work Description: Sewer connection			
PWS25-066	Michael Chosid	1031 RIVER LINE DR	\$2083.33	\$0.00
	Work Description: Sewer connection			
PWS25-064	Michael Chosid	1035 RIVER LINE DR	\$2083.33	\$0.00
	Work Description: Sewer connection			
PWS25-068	Michael Chosid	1024 WELLESLEY DR	\$2083.33	\$0.00
	Work Description: Sewer connection			
PWS25-070	Michael Chosid	1028 WELLESLEY DR	\$2083.33	\$0.00
	Work Description: Sewer connection			
PWS25-080	Michael Chosid	4417 WILLOWBANK DRIVE	\$2083.33	\$0.00
	Work Description: Sewer connection			

Total Permits For Type:	10
Total Fees For Type:	\$23749.97
Total Const. Value For Type:	\$0.00

Sign

Permit #	Applicant	Address	Fee Total	Const. Value
P25-112	R. GARI SIGN	4706-29-400-008	\$175.00	\$0.00
	Work Description: Reface existing ground monument at entrance drive. New face panels are 4'tall x 8' wide per layout. Double sided. white 4' x 8' backer board is metal. Letters are flat vinyl. Non-lit sign.			

Total Permits For Type:	1
Total Fees For Type:	\$175.00
Total Const. Value For Type:	\$0.00

Temporary Land Use

Permit #	Applicant	Address	Fee Total	Const. Value
P24-189	PINEVIEW VILLAGE CONS. GROUP INC.	1682 PINECROFT LANE	\$0.00	\$0.00
Work Description: Temporary model/sales office				

Total Permits For Type:	1
Total Fees For Type:	\$0.00
Total Const. Value For Type:	\$0.00

Water Connection

Permit #	Applicant	Address	Fee Total	Const. Value
PWS25-077	Michael Chosid	1051 ELLINGTON DR	\$2083.33	\$0.00
Work Description: water connection				
PWS25-071	Michael Chosid	1052 ELLINGTON DR	\$2083.33	\$0.00
Work Description: water connection				
PWS25-075	Michael Chosid	1055 ELLINGTON DR	\$2083.33	\$0.00
Work Description: water connection				
PWS25-061	STREAMLINE DEVELOPMENT	3110 OAK GROVE RD	\$5000.00	\$0.00
Work Description: one water hook up				
PWS25-073	Michael Chosid	4431 RAMSBURY DR	\$2083.33	\$0.00
Work Description: water connection				
PWS25-065	Michael Chosid	1031 RIVER LINE DR	\$2083.33	\$0.00
Work Description: water connection				
PWS25-063	Michael Chosid	1035 RIVER LINE DR	\$2083.33	\$0.00
Work Description: water connection				
PWS25-067	Michael Chosid	1024 WELLESLEY DR	\$2083.33	\$0.00
Work Description: water connection				
PWS25-069	Michael Chosid	1028 WELLESLEY DR	\$2083.33	\$0.00
Work Description: water connection				
PWS25-079	Michael Chosid	4417 WILLOWBANK DRIVE	\$2083.33	\$0.00
Work Description: water connection				

Total Permits For Type:	10
Total Fees For Type:	\$23749.97
Total Const. Value For Type:	\$0.00

Grand Total Fees:	\$48,634.94
Grand Total Permits:	62.00

Code Enforcement List

07/01/2025

Address	Owners Name	Parcel Number	Date Filed	Origin	Status
3735 PARSONS RD Complaint A lot of trash has been outside for over 6 months. The house is being powered by a generator.	O'CONNOR SEAN AND	4706-28-300-012	05/05/2025	PUBLIC - COMPL	OPEN - COMPLANT RECEIVE
Comments 5.5.25 - Complaint received 5.7.25 - Site visit completed, photos attached 5.8.25 - Letter sent to owners 6.16.25 - Received letter back, not deliverable. Called owner, no response, VM full. Carol researched owners - found alternative address 6.17.25 - Mailed letter to new address					
5495 OAK GROVE RD Complaint Blighted property and Nuisance . Property is in a condition and disrepair. Accumulation of filth, garbage, dismantled cars, auto parts, vegetation overgrowth, decayed trees, junk, animal excrement and vermin.	LORENZ ROBERT & TR	4706-02-401-001	05/01/2025	ANONYMOUS	OPEN - COMPLANT RECEIVE
Comments 5.1.25 - Received complaint 5.7.25 - Site visit completed, photos attached, letter sent to owners 6.16.25 - Site visit completed, no apparent clean up efforts underway, photos attached, letter sent to owners					

Code Enforcement List

07/01/2025

Address	Owners Name	Parcel Number	Date Filed	Origin	Status
1013 E MARR RD	BOUDREAU BRIAN AN	4706-12-400-031	04/08/2025	PUBLIC - EMAIL	OPEN - COMPLANT RECEIVE
Complaint Excessive noise from construction equipment entering and leaving the property for an at home business.					
Comments 4.7.25 - Complaint received 4.10.25 - Site visit completed, photos attached 4.14.25 - Photos and videos provided by complainant 4.30.25 - Site visit completed, photos attached 5.9.25 - Photos and videos provided by complainant 5.15.25 - Spoke to complainant, reviewed evidence provided 5.21.25 - Violation letter sent to owners 6.5.25 - Received email from owner 6.12.25 - Response email sent to owner 6.12.25 - Owner called to discuss the Township's response email, said that the dump truck has not been on-site since November, and that for a few weeks 2-3 office staff were reporting to the house while they were switching offices in Howell. Owner will be providing a written response to the Township 6.16.25 - Site visit completed, photos attached.					
2900 BREWER RD	LECHEVALIER KAYED	4706-22-200-014	02/13/2025	PUBLIC - EMAIL	OPEN - COMPLANT RECEIVE
Complaint Broken down vehicle in front yard, farm tractor on a lot under 2 acres.					
Comments 2.13.25 - Received complaint 2.14.25 - Spoke to homeowner about violations 2.19.25 - Letter sent to homeowner 2.19.25 - Homeowner provided proof of registration and insurance 2.25.25 - Spoke to homeowner and Twp. Planner RE parking 3.31.25 - Site visit completed, violations still present. Waiting on letter from Twp. Planner.					

Code Enforcement List

07/01/2025

Address	Owners Name	Parcel Number	Date Filed	Origin	Status
3408 CHERYL DR Complaint Has 3 junk cars, junk boat, junk camper, and at least 80 yards of debris scattered in his backyard.	MELTON HAROLD D &	4706-14-401-029	02/10/2025	PUBLIC - EMAIL	OPEN - COMPLANT RECEIVE
Comments 2.10.25 - Complaint received. 2.11.25 - Site visit completed. 2.12.25 - Letter sent to owner. 2.18.25 - Owner came into the Township and discussed the violations. The owner has agreed to a schedule to remediate the violations. 3.31.25 - Site visit completed, no visible change. 4.30.25 - Site visit completed, one vehicle no longer on site 5.15.25 - Spoke to homeowner, is requesting extension until July 1st to get the property in compliance. Letter sent to owner RE agreement 6.16.25 - Site visit completed, photos attached. 6.16.25 - Contacted owner for update, boat has been removed from the property, working on dismantling and scrapping the camper, will be removing the Cadillac, and the truck or proving that it is in active service.					

Code Enforcement List

07/01/2025

Address	Owners Name	Parcel Number	Date Filed	Origin	Status
5704 CRANDALL RD Complaint	JEWETT RICHARD L &	4706-05-200-004	11/25/2024	PUBLIC - EMAIL	OPEN - COMPLANT RECEIVE
A person is living in an RV in the back of the property against Township Ordinance.					
Comments					
12.10.24 - Site visit completed. RV is located in the back of the property. Letter sent to owner.					
1.27.25 - Site visit completed. No visible change. Letter sent to owner.					
2.11.25 - Requested additional information from complainant					
3.10.25 - January letter returned unclaimed.					
3.11.25 - December letter returned unclaimed.					
3.31.25 - Site visit completed. New letter mailed out.					
4.7.25 - Copy of letter given to homeowner. Spoke to homeowner - admitted that someone is living in the RV. Follow up letter sent to owner.					
4.14.25 - Spoke to homeowner on the phone. Spoke to Jake at LCHD on the phone, they received a complaint about sewage being discharged onto the ground from one of the RVs. Spoke to person staying in the RV (Wes Gray) on the phone. Jake from LCHD and I made a visit to the site, spoke to Wes. Wes understands that he cannot live in an RV on the property. We agreed to 30 days to remove his things from the site.					
4.30.25 - Site visit completed, Wes appears to be working on getting his things removed.					
5.14.25 - Spoke to the homeowner, Wes moved some things but has started building a new trailer. Owner will call the Sheriff's Department to understand her options to get Wes removed from her property.					
5.19.25 - Spoke to Wes, he has removed a lot of stuff but would like until June 1, 2025 to remove the rest of his stuff. He will provide receipts for the dumpster that he used. Twp will make a site visit and confirm that progress has been made. If progress has been made then we are willing to extend deadline to June 1.					
5.19.25 - Site visit completed, some clean up has taken place, photos attached. Spoke to homeowner, admits a lot of work has been done and has no issue with Wes's request to extend deadline to June 1. Letter sent to owner to confirm same.					
06-02-25- MH- Spoke with Wes and he doesn't have any where to go, fractured his hand and hurt his back moving stuff off the property. He is still trying to move stuff off the property. Jonathan is out of the office so I let him know he would be contacted when he returns.					
6.12.25 - Spoke to Wes, said he has hurt his hand but still intends to remove his things from the property. We agreed to an extension to July 31st for all things to be removed from the property, no further extensions will be granted for any reason. Will prepare letter to owners RE same.					
6.16.25 - Site visit completed, some changes have been made, photos attached.					

Code Enforcement List

07/01/2025

Address	Owners Name	Parcel Number	Date Filed	Origin	Status
4141 W GRAND RIVER A Complaint House is neglected, building unsafe, junk in yard.	TONON CHIARINA S	4706-20-400-012	09/24/2024		OPEN - COMPLANT RECEIVE
Comments 9.24.24 - Contacted Livingston County Building Department RE performing dangerous building inspection. 10.3.24 - Received LCBD determination letter. Contacted Spicer RE Dangerous Buildings Hearing Officer availability. Spicer does not currently have availability to perform these duties. 10.17.24 - Letter sent to owner. 12.19.24 - No response received. Second letter sent to owner with tracking. 1.9.25 - Spoke to owner, is getting quotes from companies to demolish the structures. Provided contact information to Township and will stay in touch with progress reports. 1.27.25 - Violation still present. 3.31.25 - Site visit completed, violation still present, no visible change 4.30.25 - Site visit completed, violation still present, no visible change, will reach out to owners 5.7.25 - Left message for owner 5.9.25 - Received voicemail from owner, they are currently working through asbestos testing, getting the site taken care of in 4-6 weeks 5.14.25 - Spoke to the company that will be performing the demolition and discussed the permitting process 6.16.25 - Site visit completed, no change					

Code Enforcement List

07/01/2025

Address	Owners Name	Parcel Number	Date Filed	Origin	Status
3265 W GRAND RIVER A Complaint Starting to add more parking on adjacent lot owned by MDOT without permits.	AMERICAN LEGION P	4706-28-200-010	05/21/2024		OPEN - COMPLANT RECEIVE
Comments 4.25.24 - Received call regarding work being done by American Legion. Site visit, verified work was underway. Contacted MDOT RE approval. 5.21.24 - Site visit completed, violation still present. Sent letter to American Legion. 6.18.24 - Site visit. More work has been completed including installing gravel in excavated area and a tent and fencing has been erected next to gravel area on MDOT property. Letter sent to American Legion. 8.1.24 - Site visit completed. Tent and fencing have been removed, large pile of dirt has been removed, additional gravel parking area still on MDOT property. 9.4.24 - Site visit completed. Violation still present. Posted Notice of Violation Ticket to front door, mailed a copy of the violation. Ticket #: 0202 9.4.24 - Phone conversation with Commander Laura Goldthwait. Requested letter explaining the violation and steps moving forward. Mailed to Legion, emailed to Laura, attached. 9.12.24 - Received correspondence from Legion's attorney denying all responsibility. Documents provided to Township's attorney. Township's attorney has contacted Legion's attorney. 10.8.24 - Site visit completed. Photos of Legion using the additional parking attached. 12.10.24 - Site visit completed. Christmas trees located in additional parking area and land east of building. Letter sent regarding temporary uses requiring permits. 1.27.25 - No change to property 3.31.25 - No change to property 4.30.25 - No change to property 6.16.25 - Site visit completed, photos attached, tent and fencing have been installed by the Legion on MDOT Property, no change to the additional parking area					

Code Enforcement List

07/01/2025

Address	Owners Name	Parcel Number	Date Filed	Origin	Status
3590 W GRAND RIVER Complaint Zoning Violations:Outdoor storage without screening, setback issues, parking not hard surfaced, no sign permit.	HASLOCK PROPERTIE	4706-28-100-024	05/06/2024		OPEN - FIRST LETTER SENT
Comments 5.13.24 - Violation letter to Occupant returned. 5.20.24 - Received phone call from owner. Will be preparing a site plan to take before the Planning Commission for approval. 6.20.24 - Received phone call from owner, discussed site plan requirements. 9.4.24 - Sent letter to owner RE site plan progress. 9.12.24 - Spoke to owner, Engineer has site plans almost complete. Will submit for review in the near future. 2.27.25 - Spoke to owner, Engineer will be submitting plans in the next week or two. 3.31.25 - Site visit completed, violations still present 4.30.25 - Site visit completed, violations still present 5.1.25 - Property owner turned in site plan. Currently considering if they would like to schedule a pre-conference prior to formally submitting the site plan. 6.9.25 - Spoke to the owner about next steps to move the site plan forward, owner is considering pairing down what has been proposed. 6.16.25 - Site visit completed, photos attached.					

Code Enforcement List

07/01/2025

Address	Owners Name	Parcel Number	Date Filed	Origin	Status
5057 WARNER RD Complaint LARGE AMOUNT OF JUNK AND LITTER IN THE YARD.	HARTER EDWARD H	4706-19-200-005	03/14/2022	PUBLIC/ EMAIL	OPEN - SECOND LETTER SEN
Comments					
4.17.2023 THERE IS MORE JUNK NOW THEN THERE WAS LAST MARCH OF 2022 OR JANUARY OF 2023.					
5.25.2023 I SPOKE WITH MR. HARTER HE IS STARTING TO CLEAN THE SITE UP, HE SAID THAT IT WILL TAKE SOME TIME TO GET IT ALL CLEANED UP. I WILL BEE CHECKING ON HIS PROGRESS EVERY FEW WEEKS TO MAKE SURE HE IS MAKING PROGRESS.					
6.29.2023 SOME PROGRESS HAS BEEN MADE. WILL CHECK BACK IN A COUPLE OF WEEKS.					
1.9.2024 did a site vist there has been no progress made on the clean up.					
1.11.2024 Finial letter sent.					
3.20.24 - Site visit. No remediation of issues has taken place. Photos attached.					
3.25.24 Spoke to owner. Owner is working on cleaning up the property, has dumpsters being delivered, scrap is in piles and ready to be taken to the scrap yard. Has requested 3 months to get the property cleaned up. Letter sent in confirmation of agreement. Scheduled visit for June 25th.					
4.23.24 - Site visit. Violation still present. Scheduled reinspection.					
5.20.24 - Site visit. Work has been started. Violation still present. Scheduled reinspection.					
6.18.24 - Site visit. Violation still present, no evidence of continued clean up activity. Will reinspect on June 25th as agreed.					
6.25.24 - Site visit. Minimal changes to site, violation still present. Letter sent to owner.					
8.1.24 - Site visit completed. Owner still working on clean-up.					
9.4.24 - Site visit completed, spoke to homeowner. Owner claims to have back of property nearly complete. Dumpster to be arriving next week, neighbors helping to remove scrap in the next few days.					
10.8.24 - Site visit completed. No evidence of activity. Final violation letter sent to owner.					
11.6.24 - Site visit completed. No evidence of activity. Will check property on 11.14.24 per letter.					
11.14.24 - Site visit completed. No evidence of activity. Ticket number 0204 issued. Ticket mailed to homeowner 11.18.24.					
12.4.24 - Spoke to homeowner. He will be completing a clean-up schedule and providing it to the Township. If the schedule is followed and clean-up of property is achieved ticket will be waived.					
12.10.24 - Schedule has not been provided to Township. Site visit completed, no change.					
1.27.25 - Site visit completed, no change. Schedule has not been provided to Township. Final violation letter sent to owner.					
2.3.25 - Received phone call from owner's wife, owner is currently in jail. By February 24th they will contact the Township to discuss deadlines for removing the junk from the site. Letter sent to owner to confirm same.					
2.24.25 - Spoke to owner's wife.					
2.28.25 - Spoke to owner's wife, came to agreement on clean up schedule. Letter on agreement sent to owner.					
3.17.25 - 2.28 letter returned. Mailed out letter again.					
3.21.25 - Homeowner left message stating that all scrap metal has been removed, two vehicles will be removed this week. We may stop by any time to see the progress.					
3.31.25 - Site visit completed, violation still present					
4.30.25 - Site visit completed, violation still present. May 4th is the clean-up deadline, will make site visit Monday May 5th to check status.					

Code Enforcement List

07/01/2025

Address	Owners Name	Parcel Number	Date Filed	Origin	Status
5.7.25 - Site visit completed, violation still present. Posted ticket #0159 to the structure, filed ticket with the District Court and requested an informal hearing, mailed copy of ticket to owner.					
5.19.25 - Received information from District Court setting formal hearing date. Contacted the court to switch to an informal hearing as originally requested.					
6.10.25 - Called Court RE informal hearing date, Court's system indicated that the ticket had been paid and closed.					
6.16.25 - Site visit completed, no apparent change, photos attached. Ticket filed with Court - requested informal hearing, ticket posted to structure and mailed to owner.					

Records: 10

Population: All Records

10E

Monthly Activity Report for June 2025 – Assessing Dept/Brent Kilpela

MTT UPDATE:

Howell W P Acquisition Group, LLC v Howell Township: A stipulation for both 2024 and 2025 has been entered for a consent judgement. The Michigan Tax Tribunal has accepted the consent judgement. This resulted in a loss of \$1,547 in property taxes to the Township for the total two-year appeal.

Howell 70 West 36 Equities LLC, Howell Equities LLC, Howell Patricia Lane Equities LLC, et al v Howell Township: This property tax appeal is with the new ownership of the Outlet Mall. Answer to appeal was filed in May. Prehearing General Call is scheduled for May 01, 2026.

SMALL CLAIMS TRIBUNAL:

No Open Appeals

ASSESSING OFFICE:

ASSESSOR: The Assessing staff met with EagleView on the possibility of future flights. Our current agreement will end in 2025. My plan is to continue with a similar agreement in the future. The most cost-effective way is to sign up for the 3 flights at a time. They would fly every other year and allow us to pay for each flight over a two-year period. This assists the Township with budgeting and aligns with how we utilize each flight by reviewing half of the imagery each year. I will bring quotes to a future board meeting.

OTHER: Attended the June Wastewater Treatment Plant meeting. Attended the Property Committee meeting with DA Building, Community Catalysts, and Jim Tischler from the State Land Bank on a potential Brownfield Authority project.

10H

DRAFT

**HOWELL TOWNSHIP PLANNING COMMISSION
REGULAR MEETING MINUTES**

3525 Byron Road Howell, MI 48855

June 24, 2025

6:30 P.M.

MEMBERS PRESENT:

Wayne Williams	Chair
Robert Spaulding	Vice Chair
Mike Newstead	Secretary
Tim Boal	Board Representative

MEMBERS ABSENT:

Matt Stanley	Commissioner
Sharon Lollo	Commissioner

Chuck Frantjeskos	Commissioner
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Also in Attendance:

Township planner Grayson Moore and Zoning Administrator Jonathan Hohenstein

Chairman Williams called the meeting to order at 6:30 pm. The roll was called. Chairman Williams requested members rise for the Pledge of Allegiance.

APPROVAL OF THE AGENDA:

Motion by Boal, **Second** by Spaulding, “**Motion to approve the agenda.**” Motion carried.

APPROVAL OF THE MEETING MINUTES:

May 27, 2025

Motion by Spaulding, **Second** by Newstead, “**To approve the minutes.**” with a friendly amendment to include a note for the NSC Public Hearing Item 10B. Motion carried.

Call to the Public

Robert Wentworth, 3598 Amber Oaks Drive (Representative for Amber Oaks Community)- Spoke on his dissatisfaction with the current setbacks for sheds and would like them to be reconsidered.

ZONING BOARD OF APPEALS REPORT:

None

TOWNSHIP BOARD REPORT:

Draft minutes are included in the packet and Board Representative Boal gave an update. There was a motion and resolution presented to dismiss the American Legion parking lot violation ticket. A pay increase for Township staff was approved, no increase for elected officials. Re-Zoning was approved for the Seyburn parcel and Mr. Juett’s Outside Storage. The ADU Ordinance is coming back to the Planning Commission for further review and the Township is hiring an Enforcement Officer; posting is on the Township website. Zoning Administrator Hohenstein spoke on future changes to the Planning Commission Application.

ORDINANCE VIOLATION REPORT:

Report in packet. Chairman Williams questioned repeated violations. Vice Chair Spaulding questioned the ordinance regarding acres required for tractors parked outside.

Scheduled Public Hearing:

None

Other Areas to be Reviewed by the Planning Commission:

None

BUSINESS ITEMS:

A. Old Business:

1. Renewable Energy Ordinance- Township Planner Moore gave a review of modifications made to the Zoning Ordinance to regulate Renewable Energy Facilities in the Township from the previous Planning Commission meetings. Board Representative Boal questioned what is appropriate and average for volume decibels allowed. Vice Chair Spaulding questioned Ground Energy System requirements and concerns with restrictions to allowed ground coverage on a parcel. Discussion followed. **Motion** by Spaulding, **Second** by Lollo, **"Move to postpone to the next meeting."** Motion carried.
2. ADU Ordinance- Township Planner Moore gave an update on changes to the ADU Ordinance that were requested by the Township Board. Board Representative Boal questioned the cost for the applicant to come in front of the Planning Commission for a Permitted Special Land Use Permit, decreased required parking spaces and his concerns with what will happen once a house with an ADU is sold. Chairman Williams questioned if there needs to be a door between the ADU and primary residence. Discussion followed. **Motion** by Boal, **Second** by Newstead, with a friendly amendment **"To approve the ADU ordinance as presented as permitted through administrative review with the added parking spaces and the document for the deed that was previously discussed."** Motion carried.
3. Storage Container Ordinance- Township Planner Moore gave an update and answered questions on the proposed Zoning Ordinance Amendments for Portable Storage Containers. There was a discussion on accessory structures under 200 sq ft. in a subdivision with a Homeowners Association. Chairman Williams questioned requirements for not having a poured foundation for an accessory building. Board Representative Boal questioned if stacking storage containers was allowed and if less than 5 on a site could be any color. Commissioner Lollo questioned if graphics would be allowed on storage containers on a farm. Discussion followed. **Motion** by Newstead, **Second** by Lollo. **"To postpone action on the proposed text amendment so that the discussed changes can be made at the next meeting."** Motion carried.

CALL TO THE PUBLIC:

Robert Wentworth, 3598 Amber Oaks Dr.- Spoke on smaller parcels under one acre regarding the setbacks for sheds.

ADJOURMENT:

Motion by Newstead, **Second** by Spaulding **"To adjourn."** Motion carried. The meeting was adjourned at 8:30 P.M.

Date

Mike Newstead
Planning Commission Secretary

Marnie Hebert
Recording Secretary

10J

Howell Township Monthly Wastewater Operations Report



North Clarifier in Operation

June 2025

Section 1

Plant Operation

Howell Township Wastewater System Operations Report June 2025

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Section 1 – Plant Operation

Attachment 1.1 – Written Operations Summary
Attachment 1.2 - Plant Performance Summary
Attachment 1.3 – EGLE Discharge Monitoring Report for May 2025
Attachment 1.4 – Process Data
Attachment 1. 5 – Brighton Analytical Data
Attachment 1.6 – Bio-lac Basin in Normal Operation
Attachment 1.7 – Biosolids Analytical Data
Attachment 1.8 – North Clarifier
Attachment 1.9 - CPEX Pump
Attachment 1.10 – Storage Building
Attachment 1.11 – Door Improvements

Section 2 – Collection System Operation

Attachment 2.1 – Written Pump Station Maintenance Summary
Attachment 2.2 – Weekly Pump Station Inspection Data
Attachment 2.3 – Pump Station 72 Stub
Attachment 2.4 – Monthly Miss Dig Log

Section 3 – Repairs and Capital Improvements

Attachment 3.1 – June 2025 Capital Projects Cost and Status Summary

Howell Township Plant Operations

Summary for May Activities:

Wastewater Treatment: The Wastewater Treatment Plant (WWTP) processed a total of **11.14 million gallons (MG)** of wastewater in May with no permit violations. See Performance Summary, Discharge Monitoring Report, Process Data, and Brighton Analytical Data presented in *Attachments 1.2 – 1.5*, respectively.

Preventative Maintenance: All scheduled monthly preventative maintenance tasks were completed as planned. These tasks are critical to maintaining the efficient and reliable operation of the WWTP. *Attachment 1.6.*

Bio Solids: Analytical results from the sludge sample were submitted by Bio Tech and are attached for review. *Attachment 1.7.*

Clarifier: As of May 9, both clarifiers were placed into service and have been running continuously with no issues. *See Attachment 1.8.*

RAS Pump Start-Up: Hamlett Environmental is currently working with the pump manufacturer to resolve an issue with the RAS pump. *See Attachment 1.9.*

Existing Pole Cold Storage Building: We met with Livingston County about a revenue and improvement opportunity for the existing storage building on the plant grounds. Photographs are in *Attachment 1.10*. There are items that can be scrapped and / or sold for some revenue as well such as metal carbon drums, a plow, a and pump around. Also, if the agreement with the County is not reached, we should find someone to repair the roof so avoid water damage on the structure.

Door Improvements: Security Lock Service Completed the work on the new door closer mechanisms and hardware. We are still waiting on the new doors for the blower building. A picture of the new hardware on a door in headworks is presented in *Attachment 1.11.*

Process Summary:

- EQ Tank
 - Operating North Tank
 - 5 broken gate valves
- Influent Sampler:
 - Normal Operation
- Headworks:
 - Normal Operation
- FeCl₂ Chemical Room
 - Normal Operation
- Aeration Basin:
 - Normal Operation
- Junction Chamber:
 - Normal Operation

- RAS Building & Clarifier:
 - May 9th both Clarifiers were put in service
- Sand Filters:
 - Normal Operation
- Post Aeration:
 - Normal Operation
- UV System:
 - Normal Operation
- Recycle Pump Station:
 - Normal Operation

Howell Township WWTP	
Plant Performance	May-25
HT WWTP Flows	
TOTAL MONTHLY EFF (MG)	9.96
TOTAL MONTHLY INF (MG)	11.14
Final Effluent Monitoring	
INF pH	7.12
EFF pH	6.97
INF NH3-mg/L	36.45
EFF NH3-mg/L	0.05
INF PO4-mg/L	6.59
EFF PO4-mg/L	0.38
INF TSS-mg/L	187.24
EFF TSS-mg/L	7.47
INF CBOD-mg/L	190.81
EFF CBOD-mg/L	1.08
AVG.% NH3-N REMOVAL	99.86%
AVG.% TOTAL P REMOVAL	94.19%
AVG.% TSS REMOVAL	96.01%
AVG.% CBOD REMOVAL	99.44%
AVG.% OVERALL REMOVAL RATE	97.37%
Chemical Used	
Ferric Gallons	1,365
Utilities	
Gas	31
Power KWH	53,600
Water Gallons	5,902
Sludge Processing	
Gallons Wasted	263,058
Gallons Hauled	
Weather Summary	
TOTAL PRECIPITATION	4.89
AVG DAILY PRECIPITATION	0.31
MAX DAILY	1.50

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY:
PERMITTEE NAME: Howell Township WWTP
MAILING ADDRESS: 3525 Byron Road
Howell, MI 48855
FACILITY: Howell Township WWTP
LOCATION: 1222 Packard Drive
Permit NO. MI0055727

DAILY DISCHARGE MONITORING REPORT

Violations

PARAMETER	FLOW	SUSPENDED SOLIDS			CBOD ₅		AMMONIA NITROGEN			TOTAL PHOSPHORUS			TOTAL MERCURY					Chloride	Sulfate	FECAL COLIFORM		pH MIN	pH MAX	D.O.		
Dates	MGD	7 DAY AVG			<1.0	7 DAY	daily max	<0.01	7 DAY	daily max	<0.1										7 DAY	0=1	6.5	9.0	Daily MIN	
		mg/l	lbs/day	mg/l	lbs/day	mg/l	lbs/day	mg/l	lbs/avg	mg/l	lbs/day	mg/l	lbs/day	ng/L	lbs/day	ng/L	ng/L	ng/L	ng/L	mg/L	mg/L	GEO MEAN	daily MAX	SU	SU	
Thursday, May 1, 2025	0.2911			5.0	12	0.9						0.26	0.6	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L			25	6.82	6.82	9.5	
Friday, May 2, 2025	0.3095													ng/L	ng/L	ng/L	ng/L	ng/L	ng/L			13	6.88	6.88	9.4	
Saturday, May 3, 2025	0.3212																						6.83	6.83	9.6	
Sunday, May 4, 2025	0.3413			5.2	15	1.3		3.7	0.03		0.1	0.42	1.2										6.99	6.99	9.6	
Monday, May 5, 2025	0.3889			12.2	40	1.6		5.0	0.55		1.8	0.32	1.0									50	6.81	6.81	9.6	
Tuesday, May 6, 2025	0.4085			47.2	161	2.0		6.9	0.07		0.2	0.40	1.3									140	7.06	7.06	9.4	
Wednesday, May 7, 2025	0.3425	15.7	50	8.8	25	1.3	4.3	3.8	0.03	0.4	0.1	0.34	1.0									43	61	6.95	6.95	9.6
Thursday, May 8, 2025	0.2248	16.1	51	7.0	13	1.2	4.3	2.2	0.05	0.5	0.1	0.42	0.8									47	41	7.00	7.00	9.7
Friday, May 9, 2025	0.3252	16.1	51				4.3			0.5												77	150	7.20	7.20	9.7
Saturday, May 10, 2025	0.3127	16.1	51				4.3			0.5												77		7.20	7.20	9.8
Sunday, May 11, 2025	0.3203	17.0	53	9.8	26	1.2	4.2	3.1	0.03	0.5	0.1	0.39	1.0									77		7.11	7.11	9.7
Monday, May 12, 2025	0.3219	16.0	49	7.0	19	1.1	3.8	2.9	0.03	0.1	0.1	0.37	1.0									97		7.00	7.00	9.6
Tuesday, May 13, 2025	0.3056	7.0	18	2.4	6	1.0	2.9	2.5	0.02	0.1	0.0	0.40	1.0									70	28	7.08	7.08	9.1
Wednesday, May 14, 2025	0.3248	6.3	16	5.2	14	0.8	2.6	2.1	0.03	0.1	0.1	0.38	1.0									63	36	6.89	6.89	9.2
Thursday, May 15, 2025	0.3173	5.9	16	5.2	14	0.8	2.6	2.2	0.03	0.1	0.1	0.45	1.2							200	29	70	36	6.89	6.89	9.2
Friday, May 16, 2025	0.3373	5.9	16				2.6			0.1												54	19	6.71	6.71	9.2
Saturday, May 17, 2025	0.3230	5.9	16				2.6			0.1												40	35	6.81	6.81	9.0
Sunday, May 18, 2025	0.3292	5.0	13	5.2	14	0.8	2.4	2.3	0.02	0.1	0.1	0.37	1.0									40		6.79	6.79	8.9
Monday, May 19, 2025	0.3286	4.8	13	6.0	16	0.8	2.3	2.3	0.05	0.1	0.1	0.40	1.1									40		6.76	6.76	9.4
Tuesday, May 20, 2025	0.3375	5.0	14	3.6	10	1.0	2.3	2.7	0.01	0.1	0.0	0.42	1.2									28	25	6.88	6.88	9.3
Wednesday, May 21, 2025	0.3527	4.6	13	3.0	9	1.0	2.5	2.8	0.01	0.1	0.0	0.49	1.4									32	59	6.92	6.92	9.7
Thursday, May 22, 2025	0.3477	4.1	12	2.8	8	0.8	2.5	2.2	0.02	0.1	0.0	0.46	1.3									40	104	6.83	6.83	9.6
Friday, May 23, 2025	0.3396	4.1	12				2.5			0.1												61	160	6.89	6.89	9.4
Saturday, May 24, 2025	0.3099	4.1	12				2.5			0.1												67	57	6.88	6.88	9.4
Sunday, May 25, 2025	0.2880	4.2	11	5.4	13	1.0	2.5	2.4	0.01	0.1	0.0	0.39	0.9									67		7.08	7.08	9.8
Monday, May 26, 2025	0.3045	3.8	10	4.0	10	1.1	2.6	2.7	0.02	0.0	0.1	0.34	0.9									67		7.10	7.10	9.9
Tuesday, May 27, 2025	0.3167	3.6	9	2.6	7	1.0	2.5	2.6	0.02	0.0	0.1	0.32	0.9									54	8	7.17	7.17	9.8
Wednesday, May 28, 2025	0.3010	3.8	10	4.2	11	1.3	2.6	3.3	0.02	0.0	0.1	0.38	0.9									40	13	7.08	7.08	9.5
Thursday, May 29, 2025	0.3064	4.2	11	5.0	13	0.9	2.6	2.2	0.02	0.1	0.1	0.37	0.9									33	42	6.99	6.99	9.3
Friday, May 30, 2025	0.2957	4.2	11				2.6			0.1												27	59	7.03	7.03	9.4
Saturday, May 31, 2025	0.2877	4.2	11				2.6			0.1												25	35	7.12	7.12	9.5
																						25		7.06	7.06	9.4
PARAMETER	FLOW	SUSPENDED SOLIDS			CBOD ₅		AMMONIA NITROGEN			AVG	0.38	0.70	TOTAL MERCURY							FECAL COLIFORM		pH MIN	pH MAX	D.O.		

Name/Title of Principal Executive Officer Or Authorized Agent: _____
I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true and accurate.
Deputy Director: James Auletta

When completed mail this report to: PCS Data Entry, MDEQ 908, P.O. Box 30273, Lansing MI, 48909-7773

FROM 5/1/2025
TO 5/31/2025

Process Data Report

DATE	Process Testing					Ferric		Clarifier Sludge Blanket		Wastings	RAS	Sludge Tanks			UTILITIES			Generator
	PO4 COMP	NH3 COMP	D.O.	Mixed Liquor	Settling	Daily Inches	Gallons	ft	ft	GPD	GPD	1	2	3	GAS METER	KWH * 100	WATER	Hours
Thursday, May 1, 2025	0.66		9.47	4150		6	49	0.5		10,768		4.50	4.00	4.00	346	31783	1480603	
Friday, May 2, 2025	0.57		9.39			6	49	0.8		10,750		4.50	4.00	4.00	347	31799	1480605	
Saturday, May 3, 2025	0.87		9.55			4	32	0.3		5,730		4.50	4.00	4.00	348	31813	1480605	
Sunday, May 4, 2025	0.94		9.64			6	49	0.3		10,721		4.50	4.00	4.00	352	31826	1480605	
Monday, May 5, 2025	0.90		9.63	4400		5	41	0.5		10,754		4.50	4.00	4.00	355	31837	1480605	
Tuesday, May 6, 2025	2.21	0.09	9.40			6	49	0.8		10,777		4.50	4.00	4.00	357	31842	1480606	
Wednesday, May 7, 2025	0.94	0.05	9.57			5	41	0.3		10,765		4.50	4.00	4.00	357	31871	1481583	
Thursday, May 8, 2025	1.10	0.25	9.68		360	6	49	0.5		10,753		4.50	4.00	4.00	358	31883	1482664	
Friday, May 9, 2025	1.09		9.73	4290		6	49	0.3	0.3			4.50	4.00	4.00	360	31902	1484818	
Saturday, May 10, 2025	0.52		9.76			6	49	0.8	0.5	10,855		4.50	4.00	4.00	362	31915	1484821	
Sunday, May 11, 2025	1.16		9.68			5	41	0.8	0.5	10,912		4.50	3.00	3.00	362	31928	1485728	
Monday, May 12, 2025	1.10		9.56	6450		5	41	1.0	0.5	10,236		4.50	4.00	4.00	362	31943	1485730	
Tuesday, May 13, 2025	1.08		9.12			6	49	0.5	0.5	22,046		4.50	4.00	4.00	362	31965	1486123	
Wednesday, May 14, 2025	1.13		9.22			6	49	0.5	0.5	22,325		4.50	4.00	4.00	362	31980	1486123	
Thursday, May 15, 2025	1.16		9.19			6	49	1.0	0.5	22,370		4.50	4.00	4.00	362	31996	1486221	
Friday, May 16, 2025	1.05		9.04	4380		6	49	0.5	0.5	11,140		4.50	3.75	3.75	362	32008	1486222	
Saturday, May 17, 2025	1.16		8.94			6	49	0.5	0.5	11,182		4.50	3.75	3.75	363	32020	1486222	
Sunday, May 18, 2025	1.13		9.39			6	49	1.0	0.5			4.50	3.75	3.75	363	32032	1486223	
Monday, May 19, 2025	0.96		9.34	4460		6	49	0.5	0.5	6,113		4.50	3.75	3.75	363	32039	1486223	
Tuesday, May 20, 2025	1.14		9.73			4	32	0.5	1.0			4.50	3.75	3.75	363	32050	1486224	
Wednesday, May 21, 2025	1.24		9.56			4	32	1.0	0.3	6,013		4.50	3.75	3.75	364	32056	1486224	
Thursday, May 22, 2025	1.32		9.36			5	41	0.5	0.5	5,977		4.50	3.75	3.75	368	32068	1486225	
Friday, May 23, 2025	1.25		9.42	4310		5	41	0.5	0.5	10,802		4.50	3.75	3.75	372	32078	1486226	
Saturday, May 24, 2025	1.16		9.82			5	41	0.5	0.5			4.50	3.75	3.75	375	32088	1486502	
Sunday, May 25, 2025	1.20		9.86			4.5	36	0.8	0.5			4.50	3.75	3.75	377	32091	1486502	
Monday, May 26, 2025	0.95		9.83	4560		6	49	0.5	1.0	8,233		4.50	3.75	3.75	377	32100	1486503	
Tuesday, May 27, 2025	0.89		9.45			5	41	0.8	0.5			4.50	3.75	3.75	377	32109	1486504	
Wednesday, May 28, 2025	0.97		9.31			5.5	45	0.8	0.5	5,933		4.50	3.75	3.75	377	32118	1486505	
Thursday, May 29, 2025	1.02		9.35		400	4.5	36	0.3	0.3	6,021		4.50	3.75	3.75	377	32126	1486505	
Friday, May 30, 2025	1.02		9.48	4600		6	49	0.3	0.3	5,910		4.50	3.75	3.75	378	32135	1487714	
Saturday, May 31, 2025	1.30		9.43			6	49	0.3	0.3	5,972		4.50	3.75	3.75	378	32144	1488224	
AVG	1.07	0.13	9.48	4622	380	5.44	44		0	10,522					31	53600	5902	
Total						169	1,365		11	263,058								

Monthly Influent Report

	WEATHER			RAW SEWAGE QUALITY									
	TEMP	PRECIP	Meter Total	TEMP	pH	cBOD ₅		Sus. Solids		TOTAL - P		NH ₃ - N	
	AIR TEMP F*	Inches	INF MGD	C*	SU	mg/l	LBS	mg/l	LBS	mg/l	LBS	mg/l	LBS
Thursday, May 1, 2025	50	0.17	0.316332	12.5	7.2	176	464	124	327	7.2	18.9	43.1	113.7
Friday, May 2, 2025	52	0.10	0.353997	12.8	7.2								
Saturday, May 3, 2025	50		0.338237	12.1	7.1								
Sunday, May 4, 2025	49		0.397501	12.1	7.1	218	723	208	690	6.3	21.0	33.6	111.4
Monday, May 5, 2025	53	1.50	0.419268	12.3	7.2	208	727	256	895	5.9	20.7	35.0	122.4
Tuesday, May 6, 2025	51	0.80	0.491540	12.4	7.1	159	652	164	672	5.9	24.4	34.2	140.2
Wednesday, May 7, 2025	58	0.45	0.379999	13.2	7.2	177	561	132	418	6.4	20.3	33.2	105.2
Thursday, May 8, 2025	45	0.02	0.365493	13.1	7.2	190	579	128	390	5.8	17.8	34.7	105.8
Friday, May 9, 2025	44		0.363278	12.6	7.2								
Saturday, May 10, 2025	50		0.358425	13.1	7.2								
Sunday, May 11, 2025	58		0.353704	14.5	7.0	180	531	112	330	6.6	19.4	37.2	109.7
Monday, May 12, 2025	56		0.347589	14.0	7.2	178	516	164	475	7.9	23.0	34.7	100.6
Tuesday, May 13, 2025	65	0.05	0.356597	14.3	7.2	203	604	208	619	6.0	17.9	33.1	98.4
Wednesday, May 14, 2025	63	0.10	0.371301	14.4	7.1	182	564	176	545	7.2	22.3	38.2	118.3
Thursday, May 15, 2025	66	0.02	0.353825	14.8	6.9	192	567	160	472	7.4	21.9	38.5	113.6
Friday, May 16, 2025	67	0.25	0.366441	14.6	7.1								
Saturday, May 17, 2025	54	0.28	0.351038	15.0	7.1								
Sunday, May 18, 2025	58		0.353040	15.1	7.2	213	627	76	224	5.7	16.8	37.7	111.0
Monday, May 19, 2025	48		0.349574	14.1	7.2	224	653	252	735	5.6	16.4	36.7	107.0
Tuesday, May 20, 2025	53		0.367385	14.0	7.1	186	570	228	699	7.9	24.2	38.8	118.9
Wednesday, May 21, 2025	49	0.60	0.384449	13.5	7.1	154	494	288	923	8.0	25.8	32.7	104.8
Thursday, May 22, 2025	47	0.20	0.374639	13.9	7.1	156	487	156	487	8.1	25.2	35.8	111.9
Friday, May 23, 2025	44	0.20	0.369687	13.6	7.0								
Saturday, May 24, 2025	49		0.322361	13.1	7.0								
Sunday, May 25, 2025	53		0.316693	13.5	7.1	216	571	316	835	6.4	16.9	38.2	100.9
Monday, May 26, 2025	56		0.342273	14.2	7.0	227	648	248	708	6.6	18.9	38.6	110.2
Tuesday, May 27, 2025	61		0.330835	16.8	7.1	175	483	192	530	5.4	15.0	35.7	98.5
Wednesday, May 28, 2025	62		0.346008	15.2	7.2	205	592	196	566	6.0	17.3	39.4	113.7
Thursday, May 29, 2025	55	0.10	0.354222	14.1	7.1	188	555	148	437	6.0	17.6	36.3	107.2
Friday, May 30, 2025	57		0.331266	14.7	7.1								
Saturday, May 31, 2025	52	0.05	0.311624	14.4	7.1								
TL		4.89	11.14										
AVG	54.03	0.31	0.36	13.8	7.12	190.8	579.4	187.2	570.3	6.6	20.1	36.4	110.6

BRIGHTON ANALYTICAL - Howell WWTP

SAMPLE DAY	Chloride mg/L	Sulfate mg/L	FINAL EFF =	UNCORR	FIELD BLANK	
			0.5	0.5	0.2	0.2
			FINAL EFF MERCURY (ng/L)	GRAB: UNCORR MERCURY (ng/L)	FIELD BLANK MERCURY (ng/L)	METH BLANK MERCURY (ng/L)
05/01/25			*g	*g	*g	*g
05/02/25						
05/03/25						
05/04/25						
05/05/25						
05/06/25						
05/07/25						
05/08/25						
05/09/25						
05/10/25						
05/11/25						
05/12/25						
05/13/25						
05/14/25	200	29				
05/15/25						
05/16/25						
05/17/25						
05/18/25						
05/19/25						
05/20/25						
05/21/25						
05/22/25						
05/23/25						
05/24/25						
05/25/25						
05/26/25						
05/27/25						
05/28/25						
05/29/25						
05/30/25						
05/31/25						

*g Not Required this Reporting Period

Bio-Lac Basin with All Aerators Repaired and Lower Air Input



Analytical Report

(Biosolid)

WO#: 2505A79

Date Reported: 5/23/2025

CLIENT:	BioTech Agronomics Inc	Collection Date:	5/15/2025 12:45:00 PM
Project:	Howell Township	Received Date:	5/15/2025 3:30:00 PM
Lab ID:	2505A79-01	Matrix:	BIOSOLIDS
Client Sample ID:	Howell Twp Str Tank	Sampled By:	Don P.

Analyses	Result	Units	RL	Qual	Table 3	Analyst	Date	Method
					Limit		Analyzed	
Arsenic	7.01	mg/Kg-dry	2.84		41.0	AS	05/16/25 16:00	SW 6020B
Cadmium	0.588	mg/Kg-dry	0.568		39.0	AS	05/16/25 16:00	SW 6020B
Calcium	12500	mg/Kg-dry	56.8			AS	05/16/25 16:00	SW 6020B
Chromium	105	mg/Kg-dry	2.84			AS	05/16/25 16:00	SW 6020B
Copper	173	mg/Kg-dry	2.84		1500	AS	05/16/25 16:00	SW 6020B
Lead	4.59	mg/Kg-dry	2.84		300	AS	05/16/25 16:00	SW 6020B
Magnesium	4070	mg/Kg-dry	56.8			AS	05/16/25 16:00	SW 6020B
Mercury	< 0.246	mg/Kg-dry	0.246		17.0	DV	05/22/25 15:40	SW 7471A
Molybdenum	12.7	mg/Kg-dry	5.68		75.0	AS	05/16/25 16:00	SW 6020B
Nickel	27.1	mg/Kg-dry	2.84		420	AS	05/16/25 16:00	SW 6020B
Potassium	2140	mg/Kg-dry	284			AS	05/16/25 16:00	SW 6020B
Selenium	< 2.84	mg/Kg-dry	2.84		100	AS	05/16/25 16:00	SW 6020B
Zinc	426	mg/Kg-dry	2.84		2800	AS	05/16/25 16:00	SW 6020B
Density	8.50	lb/Gal	1.00			JS	05/19/25 14:35	SM 2710-F
Hydrogen Ion (pH)	7.08	pH Units	1.00			KF	05/15/25 15:55	SW 9045C
Nitrogen, Ammonia	3940	mg/Kg-dry	30.9			TE	05/19/25 15:39	SM4500NH3D-2C
Nitrogen, Nitrate	< 30.9	mg/Kg-dry	30.9			DV	05/16/25 9:45	SW 9056A
Nitrogen, Total	52400	mg/Kg-dry	30.9			SB	05/23/25 9:32	
Nitrogen, Total Available	27.3	lb/ton-dry	3.09			SB	05/23/25 9:32	
Nitrogen, Total Kjeldahl	52400	mg/Kg-dry	387			TE	05/20/25 16:24	SM4500-N-2021
Phosphorus, Total (As P)	32500	mg/Kg-dry	155			AB	05/16/25 12:47	SM4500-PF-2021
Total Solids	3.23	%	0.0100			CM	05/16/25 8:21	D2216
Total Volatile Solids	70.2	%	0.100			SJ	05/20/25 14:48	EPA 160.4

Qualifiers: < Not Detected at the Reporting Limit
MCL Maximum Contaminant Level
RL Reporting Limit

H Holding times for preparation or analysis exceeded
PL Permit Limit
S Spike Recovery outside accepted recovery limits

Original
Page 2 of 3

Client: BioTech Agronomics Inc
1651 Beulah Hwy
Beulah, MI 49617

Contact Name: Mr. Don Popma
1651 Beulah Hwy
Beulah, MI 49617

Project: Howell Township Fecals

Project No: 2250168

Analyses	Result	Units	Analyst	Qual	Date Analyzed	Method
<hr/>						
Lab ID: 2505A80-01	Matrix: BIOSOLIDS	Collection Date: 5/15/2025 12:45:00 PM				
Client Sample ID: Howell Twp #1	Sampler: Don P.	Received Date: 5/15/2025 3:30:00 PM				
Coliform, Fecal	60300	Colonies/g-dry	SJ		05/15/25 16:35	SM9222D-2015
Total Solids	3.00	%	CM		05/16/25 8:21	D2216
<hr/>						
Lab ID: 2505A80-02	Matrix: BIOSOLIDS	Collection Date: 5/15/2025 12:45:00 PM				
Client Sample ID: Howell Twp #2	Sampler: Don P.	Received Date: 5/15/2025 3:30:00 PM				
Coliform, Fecal	67000	Colonies/g-dry	SJ		05/15/25 16:35	SM9222D-2015
Total Solids	3.03	%	CM		05/16/25 8:21	D2216
<hr/>						
Lab ID: 2505A80-03	Matrix: BIOSOLIDS	Collection Date: 5/15/2025 12:45:00 PM				
Client Sample ID: Howell Twp #3	Sampler: Don P.	Received Date: 5/15/2025 3:30:00 PM				
Coliform, Fecal	85300	Colonies/g-dry	SJ		05/15/25 16:35	SM9222D-2015
Total Solids	3.09	%	CM		05/16/25 8:21	D2216
<hr/>						
Lab ID: 2505A80-04	Matrix: BIOSOLIDS	Collection Date: 5/15/2025 12:45:00 PM				
Client Sample ID: Howell Twp #4	Sampler: Don P.	Received Date: 5/15/2025 3:30:00 PM				
Coliform, Fecal	67700	Colonies/g-dry	SJ		05/15/25 16:35	SM9222D-2015
Total Solids	3.06	%	CM		05/16/25 8:21	D2216
<hr/>						
Lab ID: 2505A80-05	Matrix: BIOSOLIDS	Collection Date: 5/15/2025 12:45:00 PM				
Client Sample ID: Howell Twp #5	Sampler: Don P.	Received Date: 5/15/2025 3:30:00 PM				
Coliform, Fecal	68500	Colonies/g-dry	SJ		05/15/25 16:35	SM9222D-2015
Total Solids	3.10	%	CM		05/16/25 8:21	D2216
<hr/>						
Lab ID: 2505A80-06	Matrix: BIOSOLIDS	Collection Date: 5/15/2025 12:45:00 PM				
Client Sample ID: Howell Twp #6	Sampler: Don P.	Received Date: 5/15/2025 3:30:00 PM				
Coliform, Fecal	103000	Colonies/g-dry	SJ		05/15/25 16:35	SM9222D-2015
Total Solids	3.02	%	CM		05/16/25 8:21	D2216

Qualifiers: < Not Detected at the Reporting Limit
MCL Maximum Contaminant Level
RL Reporting Limit

H Holding times for preparation or analysis exceeded
PL Permit Limit

Original

Page 2 of 4

Analytical Report

(Biofecal)

WO#: 2505A80

Date Reported: 5/23/2025

Client: BioTech Agronomics Inc
1651 Beulah Hwy
Beulah, MI 49617

Contact Name: Mr. Don Popma
1651 Beulah Hwy
Beulah, MI 49617

Project: Howell Township Fecals

Project No: 2250168

Analyses	Result	Units	Analyst	Qual	Date Analyzed	Method
Lab ID: 2505A80-07	Matrix: BIOSOLIDS				Collection Date: 5/15/2025 12:45:00 PM	
Client Sample ID: Howell Twp #7	Sampler: Don P.				Received Date: 5/15/2025 3:30:00 PM	
Coliform, Fecal	69600	Colonies/g-dry	SJ		05/15/25 16:35	SM9222D-2015
Total Solids	3.05	%	CM		05/16/25 8:21	D2216

Lab ID: 2505A80-08	Matrix: BIOSOLIDS				Collection Date: 5/15/2025 12:45:00 PM	
Client Sample ID: (1-7)	Sampler: Don P.				Received Date: 5/15/2025 3:30:00 PM	
Geometric Mean	73300	Colonies/g-Dr	SJ		05/15/25 16:35	Calculation

Qualifiers: < Not Detected at the Reporting Limit
MCL Maximum Contaminant Level
RL Reporting Limit

H Holding times for preparation or analysis exceeded
PL Permit Limit

Original

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Analytical Laboratory Report

Lab Sample ID: S74575.01

Sample Tag: Storage tank

Collected Date/Time: 05/15/2025 12:45

Matrix: Sludge

COC Reference:

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	15mL Centrifuge Tube	None	Yes	11.3	IR
1	125mL Plastic	None	Yes	11.3	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	8.93/6.48/10	ASTM D7968-17M	05/16/25 13:30	CED	

Inorganics

Method: SM2540B, Run Date: 05/16/25 13:49, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	3.2	1		%	1		

Organics

28 PFAs, Method: ASTM D7968-17M, Run Date: 05/16/25 17:06, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	2.6		ug/kg	128	375-22-4	
PFPeA*	Not detected	1.3		ug/kg	128	2706-90-3	
4:2 FTSA*	Not detected	1.3		ug/kg	128	757124-72-4	
PFHxA*	Not detected	1.3		ug/kg	128	307-24-4	
PFBS*	Not detected	1.3		ug/kg	128	375-73-5	
PFHpA*	Not detected	1.3		ug/kg	128	375-85-9	
PFPeS*	Not detected	1.3		ug/kg	128	2706-91-4	
6:2 FTSA*	Not detected	1.3		ug/kg	128	27619-97-2	
PFOA*	2.4	1.3		ug/kg	128	335-67-1	
PFHxS*	Not detected	1.3		ug/kg	128	355-46-4	
PFHxS-LN*	Not detected	1.3		ug/kg	128	355-46-4-LN	
PFHxS-BR*	Not detected	1.3		ug/kg	128	355-46-4-BR	
PFNA*	Not detected	1.3		ug/kg	128	375-95-1	
8:2 FTSA*	Not detected	1.3		ug/kg	128	39108-34-4	
PFHpS*	Not detected	1.3		ug/kg	128	375-92-8	
PFDA*	2.8	1.3		ug/kg	128	335-76-2	
N-MeFOSAA*	Not detected	1.3		ug/kg	128	2355-31-9	
EtFOSAA*	Not detected	1.3		ug/kg	128	2991-50-6	
PFOS*	5.7	1.3		ug/kg	128	1763-23-1	
PFOS-LN*	4.4	1.3		ug/kg	128	1763-23-1-LN	
PFOS-BR*	Not detected	1.3		ug/kg	128	1763-23-1-BR	
PFUnDA*	Not detected	1.3		ug/kg	128	2058-94-8	
PFNS*	Not detected	1.3		ug/kg	128	68259-12-1	
PFDODA*	Not detected	1.3		ug/kg	128	307-55-1	
PFDS*	Not detected	1.3		ug/kg	128	335-77-3	
PFTTrDA*	Not detected	1.3		ug/kg	128	72629-94-8	
FOSA*	Not detected	1.3		ug/kg	128	754-91-6	
PFTeDA*	Not detected	1.3		ug/kg	128	376-06-7	
11CI-PF3OUdS*	Not detected	1.3		ug/kg	128	763051-92-9	
9CI-PF3ONS*	Not detected	1.3		ug/kg	128	756426-58-1	
ADONA*	Not detected	1.3		ug/kg	128	919005-14-4	



Analytical Laboratory Report

Lab Sample ID: S74575.01 (continued)

Sample Tag: Storage tank

28 PFAs, Method: ASTM D7968-17M, Run Date: 05/16/25 17:06, Analyst: CED (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
HFPO-DA*	Not detected	1.3		ug/kg	128	13252-13-6	

North Clarifier and Scum Beach in Operation



New CPEX RAS Pump Awaiting Repair by Manufacturer

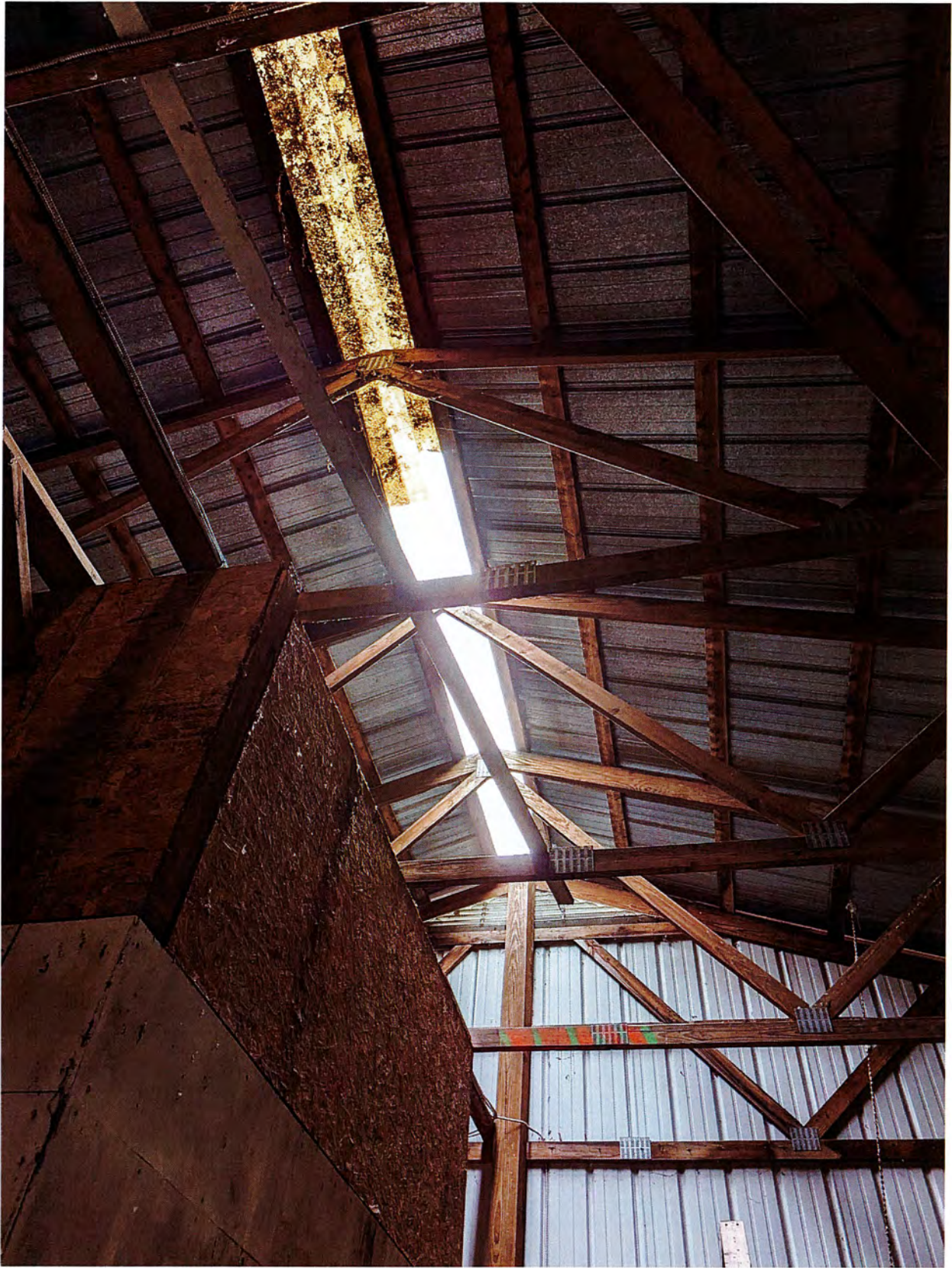




Howell Township Storage Barn



Howell Township Storage Barn



Howell Township Storage Barn



Howell Township Storage Barn





Section 2

Collection System Operation

Howell Township Pump Stations

Summary for May Activities:

Pump Station Inspections: All pump stations were inspected on a weekly basis throughout the month of May to ensure proper operation and maintenance. ([Attachment 2.2](#))

Pump Station 72: As part of the new Heritage Square Development, we pumped the wetwell down and allowed access for measurement of the existing stub. The existing stub extended 30 feet, just beyond the generator so it is concerning that given the depth, there may need to be some shoring or other support for the generator ([Attachment 2.3](#)).

Pump Station Status: The following stations are operating under normal conditions:

- **PS-70:** Normal Operations
- **PS-71:** Normal Operations
- **PS-72:** Normal Operations
- **PS-73:** Normal Operations
- **PS-74:** Normal Operations
- **PS-75:** Normal Operations
- **PS-76:** Normal Operations
- **PS-77:** Normal Operations
- **PS-78:** Normal Operations

Pump Station 70
Howell Township
June 2025

Date	Time	Initials	Pump 1	Pump 2	KWH	Generator Hours	Operated Pump 1 in Hand?	Operated Pump 2 in Hand?	Quiet?	Cleaned Floats?	Tested High Level Alarm Float?	Cleaned Transducer?	Wet Well Needs Cleaning?	Grass Needs Mowing?	Heater On?	Blow By?	Ran Generator?	Fuel Level in Generator	Hours #1	Hours #2	HOURS SINCE LAST CHECK IN	# OF DAYS	AVG RUNTIME / DAY PUMP 1	AVG RUNTIME / DAY PUMP 2	KWH Net	Generator Net	Comments
5/6/2024	1:00 PM	wd	6017.8	5727.9	64404	512	NO	NO	YES	YES	YES	NO	NO	YES	YES	NO	YES	FULL	15.5	15.3	171.3	7.1	2.171	2.143	426.0	0.3	
5/13/2024	12:40 PM	bc	6033.6	5743.2	64858	513	NO	NO	YES	YES	YES	YES	NO	NO	YES	NO	YES	FULL	15.8	15.3	167.7	7.0	2.262	2.190	454.0	0.2	
5/20/2024	1:15 PM	bc	6049.2	5758.4	65269	513	NO	NO	YES	YES	YES	YES	NO	NO	NO	NO	YES	FULL	15.6	15.2	168.6	7.0	2.221	2.164	411.0	0.2	
5/28/2024	9:05 AM	bo	6066.4	5775.3	65655	513	NO	NO	YES	YES	NO	NO	NO	YES	NO	NO	YES	FULL	17.2	16.9	187.8	7.8	2.198	2.159	386.0	0.3	
6/3/2024	1:15 PM	wd	6080.0	5788.6	65964	513	NO	NO	YES	YES	NO	NO	NO	YES	NO	NO	YES	FULL	13.6	13.3	148.2	6.2	2.203	2.154	309.0	0.2	
6/10/2024	10:57 AM	sl	6094.8	5803.3	66305	513	NO	NO	YES	YES	NO	NO	NO	YES	NO	NO	YES	FULL	14.8	14.7	165.7	6.9	2.144	2.129	341.0	0.2	
5/5/2025	1:30 PM	bc	6843.3	6546.6	87008	525	NO	NO	YES	YES	NO		NO	YES	YES	NO	YES	FULL	13.2	13.3	143.4	6.0	2.209	2.226	345.0	0.2	
5/13/2025	9:35 AM	bc	6862.0	6565.0	87438	526	NO	NO	YES	YES	NO		NO	YES	YES	NO	YES	FULL	18.7	18.4	188.1	7.8	2.386	2.348	430.0	0.2	
5/19/2025	12:50 PM	db	6875.8	6578.8	87757	526	NO	NO	YES	YES	NO		NO	YES	YES	NO	YES	FULL	13.8	13.8	147.2	6.1	2.249	2.249	319.0	0.2	
5/28/2025	12:20 PM	db	6896.1	6598.5	88240	526	NO	NO	YES	YES	NO		NO	YES	YES	NO	YES	FULL	20.3	19.7	215.5	9.0	2.261	2.194	483.0	0.2	
6/2/2025	8:55 AM	wd	6905.4	6608.9	88492	526	NO	NO	YES	YES	NO		NO	YES	YES	NO	YES	FULL	9.3	10.4	116.6	4.9	1.915	2.141	252.0	0.2	
6/10/2025	9:20 AM	db	6924.6	6628.4	88920	526	NO	NO	YES	YES	NO		NO	YES	YES	NO	YES	FULL	19.2	19.5	192.4	8.0	2.395	2.432	428.0	0.2	Radar

Pump Station 71
Howell Township
June 2025

Date	Time	Initials	Pump 1	Pump 2	KWH	Operated Pump 1 in Hand?	Operated Pump 2 in Hand?	Quiet?	Cleaned Floats?	Tested High Level Alarm Float?	Cleaned Transducer?	Wet Well Needs Cleaning?	Grass Needs Mowing?	Odor from Carbon Cannister?	Heater On?	Blow By?	Hours #1	Hours #2	HOURS SINCE LAST CHECK IN	# OF DAYS	AVG RUNTIME / DAY PUMP 1	AVG RUNTIME / DAY PUMP 2	KWH Net	Comments
5/6/2024	12:50 PM	wd	5911.8	249.8	74528	NO	NO	YES	YES	NO	NO	NO	YES		YES	NO	4.6	4.6	170.7	7.1	0.647	0.647	273.0	
5/13/2024	11:10 AM	bc	5916.3	254.4	74802	NO	NO	YES	YES	YES	NO	NO	YES		YES	NO	4.5	4.6	166.3	6.9	0.649	0.664	274.0	
5/20/2024	1:00 PM	bc	5921.0	259.1	75077	NO	NO	YES	YES	YES	NO	YES	NO		NO	NO	4.7	4.7	169.8	7.1	0.664	0.664	275.0	
5/28/2024	9:30 AM	bo	5926.2	264.2	75381	NO	NO	YES	YES	NO	NO	YES	NO		NO	NO	5.2	5.1	188.5	7.9	0.662	0.649	304.0	
6/3/2024	12:55 PM	wd	5930.2	268.3	75617	NO	NO	YES	YES	NO	NO	YES	NO		NO	NO	4.0	4.1	147.4	6.1	0.651	0.667	236.0	
6/10/2024	11:24 AM	sl	5934.5	272.7	75874	NO	NO	YES	YES	NO	NO	YES	NO		NO	NO	4.3	4.4	166.5	6.9	0.620	0.634	257.0	
5/5/2025	12:45 PM	bc	6145.2	494.1	89256	NO	NO	YES	YES	NO		NO	YES		YES	NO	3.9	4.2	143.7	6.0	0.652	0.702	242.0	Radar
5/13/2025	9:10 AM	bc	6150.4	499.6	89571	NO	NO	YES	YES	NO		NO	YES		YES	NO	5.2	5.5	188.4	7.9	0.662	0.701	315.0	
5/19/2025	12:25 PM	wd	6154.4	504.1	89811	NO	NO	YES	YES	NO		NO	YES		YES	NO	4.0	4.5	147.2	6.1	0.652	0.733	240.0	
5/28/2025	12:30 PM	db	6160.2	510.5	90175	NO	NO	YES	YES	NO		NO	YES		YES	NO	5.8	6.4	216.1	9.0	0.644	0.711	364.0	
6/2/2025	9:10 AM	wd	6163.4	514.0	90365	NO	NO	YES	YES	NO		NO	YES		YES	NO	3.2	3.5	116.7	4.9	0.658	0.720	190.0	
6/10/2025	8:55 AM	db	6168.6	519.9	90678	NO	NO	YES	YES	NO		NO	YES		YES	NO	5.2	5.9	191.8	8.0	0.651	0.738	313.0	

Pump Station 72
Howell Township
June 2025

Date	Time	Initials	Pump 1	Pump 2	KWH	Generator Hours	Fuel/Gas Read	Operated Pump 1 in Hand?	Operated Pump 2 in Hand?	Quiet?	Cleaned Floats?	Tested High Level Alarm Float?	Wet Well Needs Cleaning?	Grass Needs Mowing?	Heater On?	Ran Generator?	Blow By?	Hours #1	Hours #2	HOURS SINCE LAST CHECK IN	# OF DAYS	AVG RUNTIME / DAY PUMP 1	AVG RUNTIME / DAY PUMP 2	KWH Net	Generator Net	Fuel/Gas Net	Comments
5/6/2024	12:55 PM	wd	627.3	1558.9	80294	1259	1301	NO	NO	YES	YES	NO	NO	YES	YES	NO	NO	1.0	1.0	170.7	7.1	0.141	0.141	168.0	0.5	1.0	
5/13/2024	11:25 AM	bc	628.3	1559.9	80473	1260	1302	NO	NO	YES	YES	YES	NO	YES	YES	NO	NO	1.0	1.0	166.5	6.9	0.144	0.144	179.0	0.5	1.0	
5/20/2024	12:45 PM	bc	629.3	1560.8	80632	1260	1304	NO	NO	YES	YES	YES	NO	NO	NO	NO	NO	1.0	0.9	169.3	7.1	0.142	0.128	159.0	0.5	2.0	
5/28/2024	9:35 AM	bo	630.4	1561.8	80808	1261	1305	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO	1.1	1.0	188.8	7.9	0.140	0.127	176.0	0.5	1.0	
6/3/2024	1:00 PM	wd	631.3	1562.7	80954	1261	1306	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO	0.9	0.9	147.4	6.1	0.147	0.147	146.0	0.5	1.0	
6/10/2024	11:30 AM	sl	632.2	1563.6	81112	1262	1308	NO	NO	YES	YES	NO	YES	NO	NO	NO	NO	0.9	0.9	166.5	6.9	0.130	0.130	158.0	0.5	2.0	
5/5/2025	12:30 PM	bc	677.4	1607.6	93612	1284	1368	NO	NO	YES	YES	NO	NO	YES	YES	NO	NO	0.8	0.8	143.7	6.0	0.134	0.134	187.0	0.0	0.0	changed gen. exercise time
5/13/2025	9:20 AM	bc	678.5	1608.7	93850	1285	1369	NO	NO	YES	YES	NO	NO	YES	YES	NO	NO	1.1	1.1	188.8	7.9	0.140	0.140	238.0	0.7	1.0	
5/19/2025	12:30 PM	wd	679.3	1609.4	93993	1285	1369	NO	NO	YES	YES	NO	NO	YES	YES	NO	NO	0.8	0.7	147.2	6.1	0.130	0.114	143.0	0.0	0.0	
5/28/2025	12:40 PM	db	680.4	1610.5	94338	1286	1371	NO	NO	YES	YES	NO	NO	YES	YES	NO	NO	1.1	1.1	216.2	9.0	0.122	0.122	345.0	0.7	2.0	
6/2/2025	9:15 AM	wd	681.1	1611.2	94482	1286	1371	NO	NO	YES	YES	NO	NO	YES	YES	NO	NO	0.7	0.7	116.6	4.9	0.144	0.144	144.0	0.0	0.0	
6/10/2025	9:00 AM	db	682.2	1612.2	94666	1286	1373	NO	NO	YES	YES	NO	NO	YES	YES	NO	NO	1.1	1.0	191.8	8.0	0.138	0.125	184.0	0.6	2.0	

Pump Station 73
Howell Township
June 2025

Date	Time	Initials	Pump 1	Pump 2	Pump 3	KWH	Generator Hours	Operated Pump 1 in Hand?	Operated Pump 2 in Hand?	Quiet?	Cleaned Floats?	Tested High Level Alarm Float?	Wet Well Needs Cleaning?	Grass Needs Mowing?	Odor from Carbon Cannister?	Heater On?	Ran Generator?	Blow By?	Fuel Level in Generator	Hours #1	Hours #2	Hours #3	HOURS SINCE LAST CHECK IN	# OF DAYS	AVG RUNTIME / DAY PUMP 1	AVG RUNTIME / DAY PUMP 2	AVG RUNTIME / DAY PUMP 3	KWH Net	Generator Net	Comments
5/6/2024	12:40 PM	wd		960.2	622.6	3715	620	NO	NO	YES	YES	NO	NO	YES	NO	YES	NO	NO	FULL	0.0	4.7	5.1	170.2	7.1	0.000	0.663	0.719	8.0	0.4	
5/13/2024	10:35 AM	bc		964.7	627.3	3721	622	NO	NO	YES	YES	YES	NO	YES	NO	NO	NO	NO	FULL	0.0	4.5	4.7	165.9	6.9	0.000	0.651	0.680	6.0	1.7	
5/20/2024	11:50 AM	bc		969.5	632.3	3728	622	NO	NO	YES	YES	YES	NO	NO	NO	NO	NO	NO	FULL	0.0	4.8	5.0	169.3	7.1	0.000	0.681	0.709	7.0	0.0	no gen. exercise last week?
5/28/2024	10:00 PM	bo		974.7	637.6	3735	622	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO	NO	FULL	0.0	5.2	5.3	274.2	11.4	0.000	0.455	0.464	7.0	0.4	
6/3/2024	12:50 PM	wd		978.6	641.5	3744	623	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO	NO	FULL	0.0	3.9	3.9	62.8	2.6	0.000	1.490	1.490	9.0	0.4	
6/10/2024	11:16 AM	sl		982.8	645.9	3748	623	NO	NO	YES	YES	NO	YES	YES	NO	NO	NO	NO	FULL	0.0	4.2	4.4	166.4	6.9	0.000	0.606	0.634	4.0	0.4	
5/5/2025	12:55 PM	bc		1162.3	829.9	4162	643	NO	NO	YES	YES	NO	NO	YES		YES	NO	NO	75%	0.0	3.5	3.6	143.5	6.0	0.000	0.585	0.602	7.0	0.4	
5/12/2025	2:00 PM	sl		1167.4	835.2	4170	643	NO	NO	YES	YES	NO	NO	YES		NO	NO	NO	75%	0.0	5.1	5.3	169.1	7.0	0.000	0.724	0.752	8.0	0.4	
5/19/2025	1:15 PM	wd		1171.8	839.6	4177	644	NO	NO	YES	YES	NO	NO	YES		NO	NO	NO	75%	0.0	4.4	4.4	167.3	7.0	0.000	0.631	0.631	7.0	0.4	
5/28/2025	12:30 PM	db		1177.7	845.8	4187	644	NO	NO	YES	YES	NO	NO	YES		NO	NO	NO	75%	0.0	5.9	6.2	215.3	9.0	0.000	0.658	0.691	10.0	0.8	
6/2/2025	9:20 AM	wd		1180.2	848.4	4191	644	NO	NO	YES	YES	NO	NO	YES		NO	NO	NO	75%	0.0	2.5	2.6	116.8	4.9	0.000	0.514	0.534	4.0	0.0	
6/10/2025	8:40 AM	db		1185.1	853.6	4199	645	NO	NO	YES	YES	NO	NO	YES		NO	NO	NO	75%	0.0	4.9	5.2	191.3	8.0	0.000	0.615	0.652	8.0	0.4	

Pump Station 74
Howell Township
June 2025

Date	Time	Initials	Pump 1	Pump 2	KWH	Generator Hours	Operated Pump 1 in Hand?	Operated Pump 2 in Hand?	Quiet?	Cleaned Floats?	Tested High Level Alarm Float?	Wet Well Needs Cleaning?	Grass Needs Mowing?	Odor from Carbon Cannister?	Heater On?	Ran Generator?	Blow By?	Fuel Level in Generator	Hours #1	Hours #2	HOURS SINCE LAST CHECK IN	# OF DAYS	AVG RUNTIME / DAY PUMP 1	AVG RUNTIME / DAY PUMP 2	KWH Net	Generator Net	Comments
5/6/2024	12:25 PM	wd	126.0	141.4	297.0	2352	NO	NO	YES	YES	NO	NO	YES	NO	YES	NO	NO	75%	1.9	1.9	169.6	7.1	0.269	0.269	4.0	0.8	
5/13/2024	10:05 AM	bc	127.7	143.1	301.0	2353	NO	NO	YES	YES	YES	NO	YES	NO	YES	NO	NO	75%	1.7	1.7	165.7	6.9	0.246	0.246	4.0	0.8	
5/20/2024	11:30 AM	bc	129.4	144.8	306.0	2354	NO	NO	YES	YES	YES	NO	YES	NO	NO	NO	NO	75%	1.7	1.7	169.4	7.1	0.241	0.241	5.0	1.1	
5/28/2024	9:50 AM	bo	131.2	146.6	310.0	2355	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO	NO	75%	1.8	1.8	190.3	7.9	0.227	0.227	4.0	0.8	
6/3/2024	12:35 PM	wd	132.5	147.8	314.0	2356	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO	NO	75%	1.3	1.2	146.8	6.1	0.213	0.196	4.0	0.9	
6/10/2024	10:46 AM	sl	133.9	149.2	317.0	2357	NO	NO	YES	YES	NO	NO	YES	NO	NO	NO	NO	75%	1.4	1.4	166.2	6.9	0.202	0.202	3.0	0.8	
5/5/2025	1:15 PM	bc	197.9	213.0	530.0	2424	NO	NO	YES	YES	NO	NO	YES	NO	YES	NO	NO	50%	1.2	1.2	143.5	6.0	0.201	0.201	4.0	1.0	
5/12/2025	1:30 PM	sl	200.2	215.3	535.0	2424	NO	NO	YES	YES	NO	NO	YES	NO	NO	NO	NO	50%	2.3	2.3	168.2	7.0	0.328	0.328	5.0	0.6	
5/19/2025	1:30 PM	wd	201.9	217.1	539.0	2428	NO	NO	YES	YES	NO	NO	YES	NO	NO	NO	NO	50%	1.7	1.8	168.0	7.0	0.243	0.257	4.0	3.5	
5/28/2025	10:45 AM	db	203.9	219.0	544.0	2429	NO	NO	YES	YES	NO	NO	YES	NO	NO	NO	NO	50%	2.0	1.9	213.2	8.9	0.225	0.214	5.0	1.3	
6/2/2025	9:30 AM	wd	204.8	220.0	547.0	2429	NO	NO	YES	YES	NO	NO	YES	NO	NO	NO	NO	50%	0.9	1.0	118.8	4.9	0.182	0.202	3.0	0.0	
6/9/2025	2:35 PM	sl	206.6	221.7	551.0	2430	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	50%	1.8	1.7	173.1	7.2	0.250	0.236	4.0	0.6	

Pump Station 75
Howell Township
June 2025

Date	Time	Initials	Pump 1	Pump 2	KWH	Generator Hours	Fuel/Gas Read	Operated Pump 1 in Hand?	Operated Pump 2 in Hand?	Quiet?	Cleaned Floats?	Tested High Level Alarm Float?	Wet Well Needs Cleaning?	Grass Needs Mowing?	Heater On?	Ran Generator?	Blow By?	Hours #1	Hours #2	HOURS SINCE LAST CHECK IN	# OF DAYS	AVG RUNTIME / DAY PUMP 1	AVG RUNTIME / DAY PUMP 2	KWH Net	Generator Net	Fuel/Gas Net	Comments
5/6/2024	12:10 PM	wd	876.3	2656.2	2915	889	4112	NO	NO	YES	YES	YES	NO	NO	YES	NO	NO	4.4	4.2	171.2	7.1	0.617	0.589	7.0	0.4	3.0	
5/13/2024	9:35 AM	bc	880.6	2660.3	2922	890	4114	NO	NO	YES	YES	YES	NO	YES	YES	NO	NO	4.3	4.1	165.4	6.9	0.624	0.595	7.0	0.4	2.0	
5/20/2024	11:05 AM	bc	884.7	2664.1	2929	890	4118	NO	NO	YES	YES	YES	NO	NO	NO	NO	NO	4.1	3.8	169.5	7.1	0.581	0.538	7.0	0.6	4.0	
5/28/2024	10:35 AM	bo	889.2	2668.4	2936	891	4121	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO	4.5	4.3	191.5	8.0	0.564	0.539	7.0	0.5	3.0	
6/3/2024	12:15 PM	wd	892.6	2671.7	2942	891	4123	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO	3.4	3.3	145.7	6.1	0.560	0.544	6.0	0.3	2.0	
6/10/2024	10:33 AM	sl	896.5	2675.4	2949	891	4126	NO	NO	YES	YES	NO	NO	YES	NO	NO	NO	3.9	3.7	166.3	6.9	0.563	0.534	7.0	0.4	3.0	
5/5/2025	2:30 PM	bc	1107.9	2877.8	3343	911	4257	NO	NO	YES	YES	NO	NO	YES	YES	NO	NO	3.7	3.6	125.1	5.2	0.710	0.691	6.0	0.2	2.0	
5/12/2025	1:00 PM	sl	1113.0	2882.6	3351	912	4259	NO	NO	YES	YES	NO	NO	YES	YES	NO	NO	5.1	4.8	166.5	6.9	0.735	0.692	8.0	0.4	2.0	
5/19/2025	1:50 PM	wd	1117.8	2887.3	3356	912	4263	NO	NO	YES	YES	NO	NO	YES	YES	NO	NO	4.8	4.7	168.8	7.0	0.682	0.668	5.0	0.6	4.0	
5/28/2025	10:40 AM	db	1124.0	2893.2	3368	913	4269	NO	NO	YES	YES	NO	NO	YES	YES	NO	NO	6.2	5.9	212.8	8.9	0.699	0.665	12.0	0.8	6.0	
6/2/2025	10:05 AM	wd	1127.4	2896.5	3374	913	4269	NO	NO	YES	YES	NO	NO	YES	YES	NO	NO	3.4	3.3	119.4	5.0	0.683	0.663	6.0	0.0	0.0	
6/9/2025	2:15 PM	sl	1132.5	2901.6	3382	914	4271	NO	NO	YES	YES	NO	NO	NO	YES	NO	NO	5.1	5.1	172.2	7.2	0.711	0.711	8.0	0.4	2.0	

Pump Station 76
Howell Township
June 2025

Date	Time	Initials	Pump 1	Pump 2	KWH	Generator Hours	Operated Pump 1 in Hand?	Operated Pump 2 in Hand?	Quiet?	Cleaned Floats?	Tested High Level Alarm Float?	Wet Well Needs Cleaning?	Grass Needs Mowing?	Heater On?	Ran Generator?	Blow By?	Fuel Level in Generator	Hours #1	Hours #2	HOURS SINCE LAST CHECK IN	# OF DAYS	AVG RUNTIME / DAY PUMP 1	AVG RUNTIME / DAY PUMP 2	KWH Net	Generator Net	Comments
5/6/2024	12:05 PM	wd	3291.9	2651.2	5573	595	NO	NO	YES	YES	YES	NO	YES	YES	NO	NO	50%	5.0	5.5	171.3	7.1	0.700	0.770	201.0	0.3	
5/13/2024	9:10 AM	bc	3296.7	2656.5	5786	595	NO	NO	YES	YES	YES	NO	NO	YES	NO	NO	FULL	4.8	5.3	165.1	6.9	0.698	0.771	213.0	0.4	
5/20/2024	10:45 AM	bc	3301.5	2662.2	5975	596	NO	NO	YES	YES	YES	NO	NO	NO	NO	NO	FULL	4.8	5.7	169.6	7.1	0.679	0.807	189.0	0.5	
5/28/2024	10:05 AM	bo	3306.9	2668.2	6184	596	NO	NO	YES	YES	NO	NO	YES	NO	NO	NO	FULL	5.4	6.0	191.3	8.0	0.677	0.753	209.0	0.4	needs whipped
6/3/2024	12:05 PM	wd	3311.1	2672.8	6354	596	NO	NO	YES	YES	NO	NO	YES	NO	NO	NO	FULL	4.2	4.6	146.0	6.1	0.690	0.756	170.0	0.3	
6/10/2024	10:25 AM	sl	3315.9	2677.6	6542	597	NO	NO	YES	YES	NO	NO	YES	NO	NO	NO	FULL	4.8	4.8	166.3	6.9	0.693	0.693	188.0	0.3	
5/5/2025	2:15 PM	bc	3551.9	2919.8	18890	614	NO	NO	YES	YES	NO	NO	NO	YES	NO	NO	75%	3.9	3.7	125.1	5.2	0.748	0.710	217.0	0.5	
5/12/2025	12:50 PM	sl	3557.0	2924.5	19136	615	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO	75%	5.1	4.7	166.6	6.9	0.735	0.677	246.0	0.4	
5/19/2025	2:45 PM	wd	3562.1	2929.1	19326	615	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO	50%	5.1	4.6	169.9	7.1	0.720	0.650	190.0	0.5	
5/28/2025	10:30 AM	db	3568.5	2935.0	19610	616	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO	50%	6.4	5.9	211.7	8.8	0.725	0.669	284.0	0.7	
6/2/2025	9:50 AM	wd	3572.0	2938.5	19763	616	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO	50%	3.5	3.5	119.3	5.0	0.704	0.704	153.0	0.0	
6/9/2025	2:01 PM	sl	3577.8	2943.3	19962	616	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO	FULL	5.8	4.8	172.2	7.2	0.808	0.669	199.0	0.3	

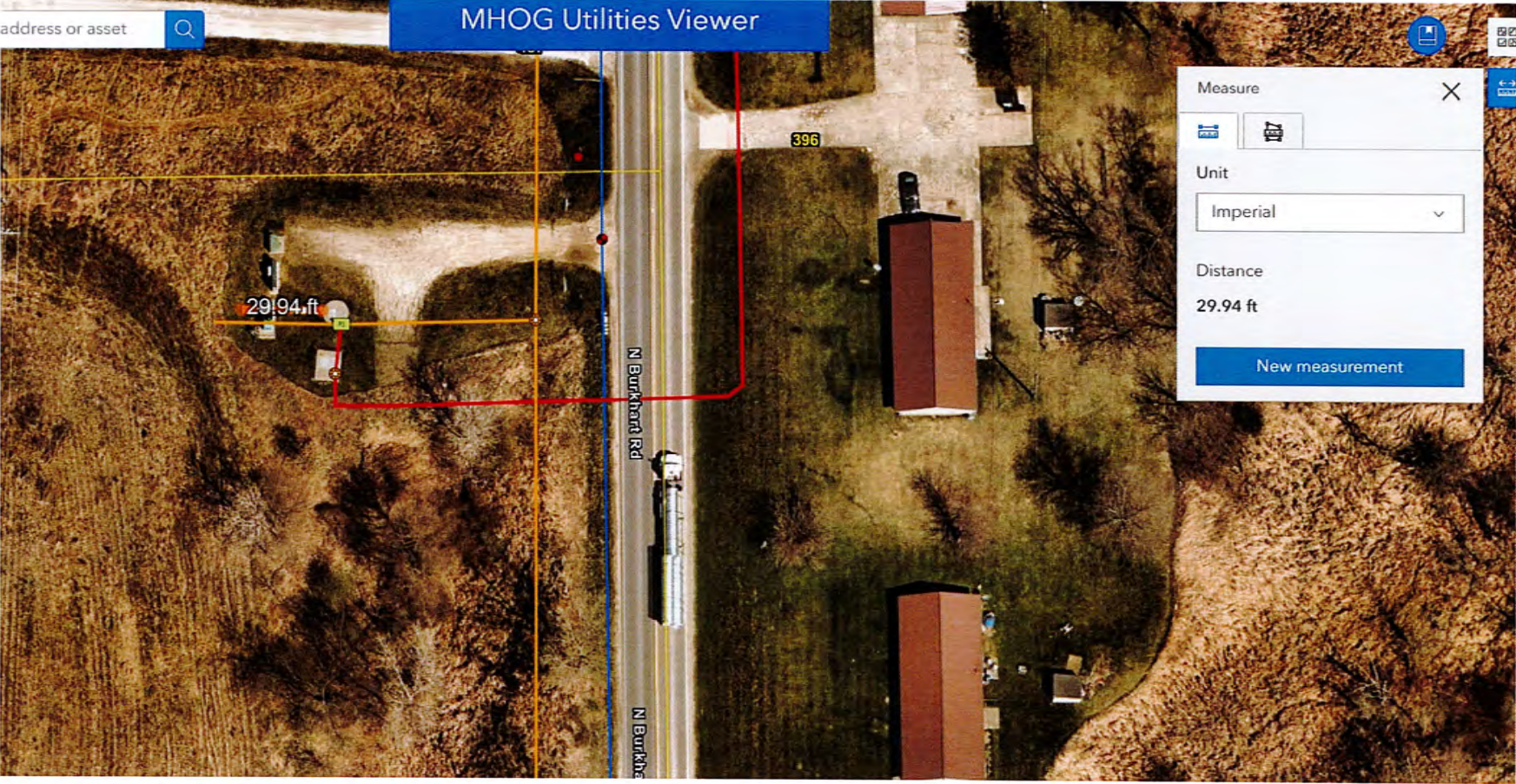
Pump Station 77
Howell Township
June 2025

Date	Time	Initials	Pump 1	Pump 2	KWH	Operated Pump 1 in Hand?	Operated Pump 2 in Hand?	Quiet?	Cleaned Floats?	Tested High Level Alarm Float?	Wet Well Needs Cleaning?	Grass Needs Mowing?	Heater On?	Blow By?	Hours #1	Hours #2	HOURS SINCE LAST CHECK IN	# OF DAYS	AVG RUNTIME / DAY PUMP 1	AVG RUNTIME / DAY PUMP 2	KWH Net	Comments
5/6/2024	11:55 AM	wd	385.5	541.2	20082	NO	NO	YES	YES	NO	NO	NO	YES	NO	0.6	0.3	171.3	7.1	0.084	0.042	33.0	
5/13/2024	8:40 AM	bc	385.6	541.6	20116	NO	NO	YES	YES	YES	NO	NO	YES	NO	0.1	0.4	164.7	6.9	0.015	0.058	34.0	
5/20/2024	10:15 AM	bc	386.0	541.9	20148	NO	NO	YES	YES	YES	NO	YES	NO	NO	0.4	0.3	169.6	7.1	0.057	0.042	32.0	
5/28/2024	10:45 AM	bo	386.3	542.2	20188	NO	NO	YES	NO	NO	NO	YES	NO	NO	0.3	0.3	192.5	8.0	0.037	0.037	40.0	
6/3/2024	12:00 PM	wd	386.6	542.5	20220	NO	NO	YES	NO	NO	NO	NO	NO	NO	0.3	0.3	145.3	6.1	0.050	0.050	32.0	
6/10/2024	11:47 AM	sl	386.8	542.7	20256	NO	NO	YES	NO	YES	NO	NO	NO	NO	0.2	0.2	167.8	7.0	0.029	0.029	36.0	
5/5/2025	2:00 PM	bc	408.4	555.5	22880	NO	NO	YES	YES	NO	NO	NO	YES	NO	0.2	0.2	125.1	5.2	0.038	0.038	28.0	
5/12/2025	12:18 PM	sl	408.7	555.8	22916	NO	NO	YES	YES	NO	NO	NO	YES	NO	0.3	0.3	166.3	6.9	0.043	0.043	36.0	
5/19/2025	2:05 PM	wd	409.1	556.1	22949	NO	NO	YES	YES	NO	NO	NO	YES	NO	0.4	0.3	169.8	7.1	0.057	0.042	33.0	
5/28/2025	8:50 AM	db	409.4	556.4	22997	NO	NO	YES	YES	NO	NO	NO	YES	NO	0.3	0.3	210.8	8.8	0.034	0.034	48.0	
6/2/2025	10:15 AM	wd	409.6	556.6	23021	NO	NO	YES	YES	NO	NO	NO	YES	NO	0.2	0.2	121.4	5.1	0.040	0.040	24.0	
6/9/2025	1:50 PM	sl	409.9	556.9	23054	NO	NO	YES	YES	NO	NO	NO	YES	NO	0.3	0.3	171.6	7.1	0.042	0.042	33.0	

Pump Station 78
Howell Township
June 2025

Date	Time	Initials	Pump 1	Pump 2	KWH	Operated Pump 1 in Hand?	Operated Pump 2 in Hand?	Quiet?	Cleaned Floats?	Tested High Level Alarm Float?	Wet Well Needs Cleaning?	Grass Needs Mowing?	Heater On?	Blow By?	Hours #1	Hours #2	HOURS SINCE LAST CHECK IN	# OF DAYS	AVG RUNTIME / DAY PUMP 1	AVG RUNTIME / DAY PUMP 2	KWH Net	Comments
5/6/2024	1:30 PM	wd	1686.2	1816.9	13351	NO	NO	YES	YES	YES	NO	YES	YES	NO	9.7	9.9	172.1	7.2	1.353	1.381	345.0	
5/13/2024	1:05 PM	bc	1696.1	1826.8	13696	NO	NO	YES	YES	YES	NO	YES	YES	NO	9.9	9.9	167.6	7.0	1.418	1.418	345.0	
5/20/2024	1:35 PM	bc	1705.6	1836.3	14033	NO	NO	YES	YES	YES	NO	NO	NO	NO	9.5	9.5	168.5	7.0	1.353	1.353	337.0	
5/28/2024	8:45 AM	bo	1715.7	1846.6	14405	NO	NO	YES	YES	NO	NO	NO	NO	NO	10.1	10.3	187.2	7.8	1.295	1.321	372.0	
6/3/2024	1:35 PM	wd	1724.0	1854.9	14700	NO	NO	YES	YES	NO	NO	YES	NO	NO	8.3	8.3	148.8	6.2	1.338	1.338	295.0	
6/10/2024	11:38 AM	sl	1733.5	1864.5	15037	NO	NO	YES	YES	NO	NO	YES	NO	NO	9.5	9.6	166.1	6.9	1.373	1.388	337.0	
5/5/2025	1:45 PM	bc	2202.6	2336.3	32195	NO	NO	YES	YES	NO	NO	YES	YES	NO	8.3	8.3	143.3	6.0	1.390	1.390	291.0	
5/13/2025	9:55 AM	bc	2214.7	2348.4	32611	NO	NO	YES	YES	NO	NO	YES	YES	NO	12.1	12.1	188.2	7.8	1.543	1.543	416.0	
5/19/2025	12:15 PM	wd	2223.3	2357.0	32910	NO	NO	YES	YES	NO	NO	YES	YES	NO	8.6	8.6	146.3	6.1	1.410	1.410	299.0	
5/28/2025	12:50 PM	db	2235.8	2369.5	33347	NO	NO	YES	YES	NO	NO	YES	YES	NO	12.5	12.5	216.6	9.0	1.385	1.385	437.0	
6/2/2025	10:40 AM	wd	2242.7	2376.2	33585	NO	NO	YES	YES	NO	NO	YES	YES	NO	6.9	6.7	117.8	4.9	1.405	1.365	238.0	
6/10/2025	9:50 AM	db	2254.3	2388.1	33992	NO	NO	YES	YES	NO	NO	YES	YES	NO	11.6	11.9	191.2	8.0	1.456	1.494	407.0	

Pump Station 72 Stub



Monthly Missdig Log

May-25											
Date	Missdig Tickets					Marked					
	Received	Positive Response	Marked	Cleared	Out of System	MHOG	OPW	LE	G/O	OPS	HTS
Thursday, May 01, 2025	48	20	8	12	0	4	1	0	2	0	1
Friday, May 02, 2025	28	50	19	31	0	12	1	0	4	1	1
Saturday, May 03, 2025	15	0	0	0	0	0	0	0	0	0	0
Sunday, May 04, 2025	4	0	0	0	0	0	0	0	0	0	0
Monday, May 05, 2025	45	39	23	16	0	13	3	0	5	1	1
Tuesday, May 06, 2025	18	40	19	21	0	13	0	0	4	2	0
Wednesday, May 07, 2025	27	16	0	16	0	0	0	0	0	0	0
Thursday, May 08, 2025	14	36	19	17	0	13	2	0	3	1	0
Friday, May 09, 2025	22	0	0	0	0	0	0	0	0	0	0
Saturday, May 10, 2025	5	0	0	0	0	0	0	0	0	0	0
Sunday, May 11, 2025	5	0	0	0	0	0	0	0	0	0	0
Monday, May 12, 2025	30	59	14	45	0	11	0	0	1	1	1
Tuesday, May 13, 2025	43	31	14	17	0	10	0	0	4	0	0
Wednesday, May 14, 2025	26	23	14	9	0	10	0	0	4	0	0
Thursday, May 15, 2025	32	43	19	24	0	8	3	0	2	5	1
Friday, May 16, 2025	55	57	9	48	0	7	0	0	1	0	1
Saturday, May 17, 2025	2	0	0	0	0	0	0	0	0	0	0
Sunday, May 18, 2025	4	0	0	0	0	0	0	0	0	0	0
Monday, May 19, 2025	30	26	12	14	0	10	0	0	2	0	0
Tuesday, May 20, 2025	26	0	0	0	0	0	0	0	0	0	0
Wednesday, May 21, 2025	25	56	18	38	0	9	1	0	3	3	2
Thursday, May 22, 2025	39	41	23	18	0	9	5	0	4	4	1
Friday, May 23, 2025	31	37	16	21	0	12	1	0	2	1	0
Saturday, May 24, 2025	1	0	0	0	0	0	0	0	0	0	0
Sunday, May 25, 2025	6	0	0	0	0	0	0	0	0	0	0
Monday, May 26, 2025	0	0	0	0	0	0	0	0	0	0	0
Tuesday, May 27, 2025	40	38	9	29	0	5	1	0	2	1	0
Wednesday, May 28, 2025	29	43	20	23	0	14	3	0	1	2	0
Thursday, May 29, 2025	42	38	16	22	0	9	1	0	3	2	1
Friday, May 30, 2025	50	34	7	27	0	3	0	0	0	3	1
Saturday, May 31, 2025	2	0	0	0	0	0	0	0	0	0	0
Total	744	727	279	448	0	172	22	0	47	27	11
	Received	Positive Response	Marked	Cleared	Out of System	MHOG	OPW	LE	G/O	OPS	HTS
	24	23	9	14	0	Total 279					
	Average Per Day					% Marked to Received					
						38%					

MHOG = MHOG Water System
OPW = Oak Pointe Water System

LE = Lake Edgewood Sewer System
G/O = G/O Sewer System
OPS = Oak Pointe Sewer System
HTS = Howell Township Sewer System

Section 3

Repairs & Capital Improvements

Howell Township
New 2025 Improvement Plan Summary
Updated 6/13/25

Active CIP and Significant Repairs In Progress						
No.	Project Description	Contractor	Priority	Initial Estimate	Actual Cost/Quote	Update
2	Union at Oak Grove SCADA Integration	Kennedy	High	\$10,000	\$10,000	Base screens are built, need Kennedy to finish up
1	Aeration Basin Diffuser Repair / Replacement	MHOG	High	\$10,000		Finished Repairs, Need to Prepare Order for Replacement Parts
2	Aeration DO Probe Installation	MHOG/UIS	High	\$5,000		Using Old from Lake Edgewood to Save Costs
3	Rebuilt UV Unit	UIS	High	\$15,000		Gave UIS Bulbs to match up wiring, still waiting on quote
4	Influent Sampler Shed	MHOG	High	\$2,500	< \$1,000	Complete
5	Lights in Headworks, Blower Building and RAS Building	K&J Electric	Medium	\$7,500	\$8,600	Notified K&J of Approval, ordering materials, will get schedule soon.
6	Post Aeration By-pass	D'Angelo	Medium	\$15,000		Requires 12-inch and 8-inch Gate Valves
7	South Clarifier Inspection and Repairs	FHC	High	\$20,000		After successful north clarifier start up
8	Bldg Temperature Alarms	UIS	Medium	\$5,000		Quote from UIS to integrate into SCADA
9	Exterior HVAC Unit on Headworks	TBD	High	\$5,000		Need to find a good contractor
10	Fix Doors on Blower Bldg., RAS Building, and Headworks	Security Lock	High	\$10,000	\$14,225	Hardware is complete, waiting on new doors to come in
11	Fix Screens on Admin Building, Reduce Fall Box Elder Bugs	MHOG	Medium	\$2,000		Hope to do with internal staff
12	Sand Filter Lift Tubes	MHOG	High	\$2,000		May need a welding sub
Total				\$109,000	\$32,825	

10K

HOWELL recreation

Regular Board Meeting Minutes April 15, 2025

Call to Order

Sean Dunleavy Chair called the meeting to order at 6:30pm.

Pledge of Allegiance

Attendance:

Board members: Sean Dunleavy Chair, Candie Hovarter Secretary, Tammy Beal Treasurer, Sue Daus Trustee

Staff: Director Tim Church, Kyle Tokan, Jordan Hilbrecht, Kevin Troshak, Jen Savage, Jen Baca

Public: Terry Philbeck

Approval of Consent Agenda

Approval of Regular Agenda

Discussion/Approval

New Deputy Director Jen Baca introduced herself as a Marion Township resident that lives in Howell.

A motion was made by Tammy Beal to approve the HAPRA Audit and seconded by Sue Daus, Motion carried 4-0.

A motion to approve the Financial Policy as presented motioned by Tammy Beal and seconded by Candie Hovarter. Motion carried 4-0.

A motion to approve 2025 First Quarter Budget Amendments was motioned by Tammy Beal and seconded by Sue Daus. Motioned carried 4-0.

A motion to approve the Howell Melon Festival Civic Event Application was made by Candie Hovarter and seconded by Tammy Beal. Motion carried 4-0.

A motion to approve the Melon Festival Liquor License was made by Tammy Beal and seconded by Sue Daus. Roll call vote: Candie Hovarter, Sue Daus, Tammy Beal, Sean Dunleavy, motion approved.

A motion to approve the Bid Policy for purchasing was made by Sue Daus and seconded by Tammy Beal. Motion carried 4-0.

A motion to approve the Personal Time Off Policy made by Sue Daus and seconded by Tammy Beal. Motion carried 4-0.

A motion to table the , Parental Leave Policy, and Leave Policy until the next meeting for further discussion was made by Candie Hovarter and seconded by Tammy Beal. Motion carried 4-0.

A motion to approve the Collaborative Network Coaching Agreement was made by Sean Dunleavy and seconded by Tammy Beal. Motion carried 4-0.

The Flashlight Egg Hunt was a big success, 100 teens participated, and many great prizes were handed out. The hiring and returning of counselors for the upcoming season is going well according to Kevin Troshak.

Jen Baca and Tim Church are doing facilities supervisor interviews.

There are currently 750 soccer players registered and 250 on the wait list.

The Howell Bigby had another free coffee day for HAPRA at their location and Jen Baca, Jordan Hilbrecht and Tim Church attended the event.

The Seasonal Guide Program is available on the website.

The Senior Center newsletters have been printed and are paid for by advertisers.

The Maintenance Report by Kyle Tokan includes the fire alarm test went well. The concrete and wood floors will be redone in August during the shutdown. April 22 is the Earth Day Clean-up, and kids will help. The Bennett Center waterline was replaced. The March 30, 2025 storm didn't damage the properties except for slight roof repair needed at the Bennett Center. The boiler testing at the Bennett Center went well. Some of the millage money will be used to fix the fence at the dog park. The Ocala and Marion Township's maintenance agreements were approved. The Genoa Township trash-pickup and maintenance agreement was approved.

Mike Luce from the Hartland teen center, HERO Teen Center, asked for help from Kevin Troshak to consider a management agreement to oversee staff at the center and offered a proposal to help run it. The idea is being considered.

The Board Orientation Packet is being finalized by Tim Church. It will be scanned and emailed soon.

The Page Field and Bennett Center agreements are coming and should be extended. The Genoa Soccer lease has language about parking issues and includes a \$500 fine for parking violations.

The Bennett Project includes new windows and doors that are safety conscious. There is a need for energy efficient windows, doors, the flooring and lights were previously completed. AN engineer needs to sign-off per licensing and the engineer will look at the building for previous concerns with movement. Bids are needed to redo the tennis courts. Dr. Daniels is looking into a grant from USTA. The basketball court also needs work. Tim Church is going to email township supervisors and city managers to see if they have space for outdoor pickleball courts.

The Disability Network is celebrating the ADA Act on July 10, 2025, at Oceola Community Center. Great Lakes products will have a presentation from 9-11am.

Howell Township is considering adding offices and replacing the carpet in the building. Genoa Township, Candie Hovarter knew about the meeting with HAPRA.

Marion Township is building four pickleball courts on Triangle Lake Road and is using Spicer Engineering.

Oceola is housing some of Jordan Hilbrecht's items she needs for events at the Oceola Township building. The barn is going to be demolished for new bathrooms. Two more soccer fields and a parking lot are going to be added along with a barn for storage. Four pickleball courts will be added eventually.

A motion to adjourn was made by Sue Daus and seconded by Tammy Beal. Motion carried 4-0. 8:38pm.

Submitted by: Candie Hovarter

10L



Jonathan Hohenstein
Treasurer
Howell Township
3525 Byron Road
Howell, MI 48855

VIA: treasurer@howelltownshipmi.org

RE: Shiawassee River Superfund Site, Howell, Michigan

Dear Mr. Hohenstein:

Thank you for meeting with the U.S. Environmental Protection Agency (EPA or the Agency) on January 15, 2025, about Howell Township's plans concerning two of its properties, parcel numbers 4706-15-300-002 and 4706-22-100-001, ("Properties") at the Shiawassee River Superfund Site ("Site") in Howell, Livingston County, Michigan. In your inquiry, you described your interest in developing a public park that includes a walking trail and parking stalls at the Properties and requested that we provide you with a Superfund comfort/status letter.

The purposes of this comfort/status letter are to provide you with information that may be relevant to the potential Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) liability concerns you have identified at the Properties and summarize the relevant information available to EPA about the Site as of the date of this letter. We hope this information will enable you to make informed decisions as you move forward with your plans regarding the Properties.

Under CERCLA (commonly referred to as Superfund),¹ the Agency's mission is to protect human health and the environment from risks posed by exposure to contaminated or potentially contaminated land, water, and other media. A Superfund cleanup can help return these

¹ 42 U.S.C. §§ 9601, *et seq.*

properties to productive reuse. We are providing this letter consistent with the Agency's 2019 Comfort/Status letter policy.²

Property Status

Interested parties can find information on sites that are, or potentially are, contaminated and may warrant action under Superfund, including site-specific documents and fact sheets, in the Superfund Enterprise Management System (SEMS)³.

<https://www.epa.gov/superfund/shiawassee-river>

The Properties may be part of the Site since contaminated sediment could have been transported to the Properties through flooding events. The Site is located in SEMS and is on the National Priorities List (NPL). For the reasons stated below, we are addressing the Site under Superfund remedial authority.

History and Status of the Site

SEMS provides information on (1) whether an NPL site is proposed, final, or deleted, (2) sites subject to a federal remedial or removal action, and (3) sites with a [Superfund Alternative Approach](#) agreement.⁴

From 1969 through approximately 1974, the former Cast Forge Company (CFC) facility, discharged polychlorinated biphenyls (PCBs) process water into an unlined lagoon that overflowed to an on-Site drainage ditch that discharged to the Shiawassee River. The unlined lagoon was closed and replaced with an underground settling tank that occasionally overflowed into a storm drain that led to the river. In the 1970s, the State of Michigan found elevated levels of PCBs in the river's sediment and identified CFC as the primary source of the contamination. CFC ceased using the settling tank and discharging PCBs. Site investigations by the State of Michigan revealed PCB contaminated soils, river sediment, and fish.

In 1983, the Site was listed on the NPL to address PCB contamination of Shiawassee River sediment and floodplain soils, groundwater, and on-Site soils at the CFC facility. In 1999, EPA took over the Site investigation and issued a Record of Decision (ROD) in 2002. EPA presented in its 2002 ROD the selected remedial action consisting of limited removal and disposal of PCB-contaminated soil at the former CFC facility and on the river floodplain, removal and disposal of PCB-contaminated sediment, post remediation monitoring, and implementation of institutional controls for the former CFC property. In 2004 and 2005, remedial action cleanup work was

² See 2019 Policy on the Issuance of Superfund Comfort/Status Letters available on the Agency's website at <https://www.epa.gov/enforcement/comfortstatus-letters-guidance>.

³ SEMS is available at on the Agency's website at <https://cumulis.epa.gov/supercpad/cursites/srchsites.cfm>.

⁴ See *Transmittal of Updated Superfund Response and Settlement Approach for Sites Using the Superfund Alternative Approach (SAA Guidance)* (Sept. 28, 2012), <https://www.epa.gov/enforcement/transmittal-memo-updated-superfund-response-and-settlement-approach-sites-using>. See *Transmittal of Updated Superfund Response and Settlement Approach for Sites Using the Superfund Alternative Approach (SAA Guidance)* (Sept. 28, 2012).

undertaken. Currently, the monitored natural recovery remedy is being implemented and evaluated to ensure remedial goals - including the long-term PCB cleanup of Shiawassee River sediments aimed at protecting ecological receptors such as mink through dietary consumption of fish – are achieved. Depending on the monitoring results, there may be a need for additional work. Please note, the Michigan Department of Health and Human Services has a safe fish guide for the Shiawassee River which indicates that no amount of any species of fish should be eaten by humans (See [Eat Safe Fish Guide-Southeast Michigan](#)). That advisory is in effect due to the presence of PCBs in river sediments and to protect human health.

Reuse of the Properties

Based on the information that you provided, EPA understands that Howell Township intends to develop a public park at the Properties consisting of a walking trail located approximately 500-1000 feet away from the Shiawassee River and parking stalls. We also understand the development may involve grading, excavation and material installation to construct the walking trails and parking stalls. Please note that, to ensure the remedy remains protective of human health and the environment, any development must be compatible with any further response actions, if applicable, that EPA may require to achieve the performance standards or to maintain the effectiveness of the remedy set forth in the ROD. This requirement is designed to protect the remedy and prevent unacceptable exposure to residual contamination. As of the date of this letter, we have not identified any obvious incompatibility between your proposed use of the Properties as you have described it to us and EPA's selected cleanup option. As your plans develop further, please continue to discuss the development with us.

CERCLA § 101(20)(D) State and Local Government Liability Exemption

EPA understands that you are interested in information regarding the state and local government liability exemption provision of CERCLA. In 2018, Congress enacted the Brownfields Utilization, Investment, and Local Development Act of 2018 (BUILD Act).⁵ CERCLA § 101 (20)(D), as amended by the BUILD Act, provides liability protection to local governments⁶ that may exempt them under certain circumstances from being an “owner” or “operator” and thus may protect them from potential CERCLA liability.

The BUILD Act amended CERCLA § 101(20)(D) to add a new category of exempt acquisitions, “through seizure or otherwise in connection with law enforcement activity” and to remove the requirement that state and local governments must acquire title to property “involuntarily.” Section 101(20)(D) now states that a “unit of State or local government which acquired ownership or control through seizure or otherwise in connection with law enforcement activity, or through bankruptcy, tax delinquency, abandonment, or other circumstances in which the government acquires title by virtue of its function as sovereign” is exempt from the definition

⁵ Brownfields Utilization, Investment, and Local Development Act of 2018, Division N of Pub. L. No. 115-141, 132 Stat. 1052 (March 23, 2018).

⁶ Many of the references to “local governments” in this letter and to CERCLA’s liability protections are also applicable to state governments.

of “owner or operator” if that government entity did not cause or contribute to the release or threatened release of a hazardous substance from the facility. Please note that some actions or omissions during ownership (such as dispersing contaminated soil during excavation and grading and failing to prevent the release of hazardous substances) may cause or contribute to a release of hazardous substances from a property and make the local government ineligible for the exemption.⁷

CERCLA § 101(20)(D) identifies “through tax delinquency” as a circumstance or process that may trigger the use of government-specific acquisition methods that are exempt from CERCLA liability. Based on the information currently known to the EPA on the circumstances of Howell Township’s acquisition of the Properties, the CERCLA § 101(20)(D) exemption may apply.

On June 15, 2020, EPA issued guidance that describes the Agency’s enforcement discretion policies that may apply to state and local governments and to your situation. The Local Government Guidance provides:

The CERCLA § 101(20)(D) exemption from owner or operator liability includes circumstances in which a local government acquires title to property “by virtue of its function as sovereign.” This phrase is undefined in the statute. To provide clarity to local governments, the EPA generally intends to exercise its enforcement discretion to treat a local government acquisition as “by virtue of its function as sovereign” only when the government acquires title to the property by exercising a uniquely governmental authority via a function that is unique to its status as a governmental body.

Pursuant to the Local Government Guidance, enforcement discretion may apply in limited circumstances when a governmental entity purchases property in the exercise of a uniquely governmental authority. Furthermore, the Local Government Guidance also provides enforcement discretion for certain transfers of property between governmental units in the exercise of their “by virtue of function as sovereign” authority. Based on the information the EPA currently has on Howell Township’s situation, the Local Government Guidance may apply.

Please note, application of the Local Government Guidance is conditioned on Howell Township not causing or contributing to a release and not otherwise being potentially liable. Courts, not EPA, are the final arbiter of whether a party has achieved a liability protection. Thus, EPA recommends that you consult your legal counsel to assess whether you satisfy each of the statutory requirements necessary to achieve and maintain the state and local government liability exemption.

⁷ For additional discussion of post-acquisition activities that may or may not be considered releases under CERCLA, see the disposal discussion beginning on page 8 of the EPA’s *Enforcement Discretion Guidance Regarding Statutory Criteria for Those Who May Qualify as CERCLA Bona Fide Prospective Purchasers, Contiguous Property Owners, or Innocent Landowners* (“Common Elements Guidance”), July 29, 2019, available on the Agency’s website at <https://www.epa.gov/enforcement/common-elements-guidance>.

State Actions

We can only provide you with information about federal Superfund actions at the Site, federal law and regulations, and EPA guidance. For information about potential state actions and liability issues, please contact Jason Harnick, Project Manager, Michigan Department of Environment, Great Lakes, and Energy at (517) 599-7421 or harnickj1@michigan.gov.

Conclusion

EPA remains dedicated to facilitating the cleanup and beneficial reuse of contaminated properties and hopes the information contained in this letter is useful to you. You may find it helpful to consult your own environmental professional, legal counsel, and your state, tribal, or local environmental protection agency before taking any action to acquire, clean up, or redevelop the Property. These consultations may help you obtain a greater level of comfort about the compatibility of the proposed use and ensure compliance with any applicable federal, state, local, and/or tribal laws or requirements. If you have any additional questions or wish to discuss this information further, please feel free to contact Jeff Thomas.

Sincerely,

Karen Kirchner
Manager, Remedial Response Branch 1
Superfund & Emergency Management Division

*cc (via Email): Jason Harnick, EGLE
Polly Synk, MI AG
Luanne Laemmerman, MI AG
Matthew Sander, EPA OECA/OSRE
Tom Bloom, Jeff Thomas, EPA SEMD
Natalie Romain, EPA ECO
Tammy Carnovsky, EPA ORC*

10M

Limited Phase II Environmental Site Assessment

0, 2755, and 2990 Tooley Road &
0 Bowen Road
Howell Township, Michigan

Howell Township

June 20, 2025

ASTI ENVIRONMENTAL



Limited Phase II Environmental Site Assessment

0, 2755, and 2990 Tooley Road &
0 Bowen Road
Howell Township, Michigan

June 20, 2025

Prepared For:

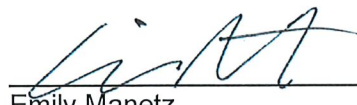
Howell Township
3525 Byron Road
Howell, MI 48855

Report Prepared By:

ASTI Environmental
10448 Citation Drive, Suite 100
Brighton, Michigan 48116
(810) 225-2800

ASTI Project No. A24-1988.01

Report Prepared by:



Emily Manetz
Environmental Scientist

Report Reviewed by:



Jeremy Efros, CPG
Senior Technical Lead
Due Diligence/Remediation Group



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- 1 Site Location Map
- 2 Sample Location Map

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- 1 Soil Sample Analytical Results
- 2 Incremental Soil Sample Analytical Results
- 3 Groundwater Sample Analytical Results
- 4 Calculation of Site-Specific Direct Contact Criteria for Recreational Use

ATTACHMENTS

- A Soil Boring Logs
- B Laboratory Analytical Reports and Chain-of-Custody Documentation

1.0 INTRODUCTION

ASTI Environmental (ASTI) was retained by Howell Township to conduct a Limited Phase II Environmental Site Assessment (ESA) of the property located at 0, 2755, and 2990 Tooley Road and 0 Bowen Road in Howell Township, Livingston County, Michigan (Subject Property). A Site Location Map is provided as Figure 1. The Subject Property consists of four contiguous parcels comprised of approximately 249 acres of land with the following Parcel IDs and acreage:

Parcel Information	Street Address	Parcel ID	Acreage
	0 Bowen Road	4706-21-200-020	33.13
	0 Tooley Road	4706-22-100-001	80.49
	2755 Tooley Road	4706-21-200-019	55.27
	2990 Tooley Road	4706-15-300-002	80.16

This investigation was prepared for the benefit of Howell Township, and ASTI acknowledges that said party may rely upon the contents and conclusions presented in this report. The Limited Phase II ESA was conducted in accordance with ASTI's proposal dated March 10, 2025.

2.0 PURPOSE AND PROPERTY HISTORY AND INFORMATION

2.1 Purpose

ASTI conducted three separate Phase I ESAs for the Subject Property, which were completed on January 20, 2025 (0 Bowen Road), February 5, 2025 (0 and 2990 Tooley Road), and February 6, 2026 (2755 Tooley Road). The following recognized environmental conditions (RECs) were identified with respect to the Subject Property (the RECs listed in this report are numbered differently than in the Phase I ESAs for ease of describing the scope of work completed, but the ordering of the RECs match the Phase I ESAs):

0 Bowen Road, Parcel ID 4706-21-200-020

- REC 1. Biosolids appear to have been applied to the Subject Property as an agricultural nutrient booster. The biosolids were applied by Biotech Agronomics, Inc. and they were sourced from the Pontiac Wastewater Treatment Plant (WWTP). The

obtained biosolids application notification was issued on May 29, 2014. The biosolids were tested for arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, zinc, nitrogen, phosphorus, and potassium. The biosolids do not appear to have been tested for per- and polyfluoroalkyl substances (PFAS), which is now known to be spread through biosolids from WWTPs.

- REC 2. The Subject Property was initially included in a Baseline Environmental Assessment (BEA) from 2004 that covered a 207-acre site formerly operated by Difco Lab. The report was revised to a smaller fraction that is approximately 8.6 acres. The Subject Property is not included in the revised area; however, no sampling was conducted on the Subject Property to distinguish or verify its condition.

2755 Tooley Road, Parcel ID 4706-21-200-019

- REC 3. Environmental investigations by ENKON in 1992 identified arsenic and selenium in soil samples exceeding the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Part 201 Generic Residential Cleanup Criteria (GRCC) in multiple areas, including a septic system leach field, a drainage ditch, and a laboratory waste disposal pit. Additionally, groundwater sample MW-1 contained arsenic and lead exceeding GRCC near a stream that fed a former stormwater pond. While subsequent investigations by SEI in 1994 concluded that these impacts were within background levels or non-leaching, the presence of historical exceedances in soil and groundwater raises concerns regarding residual contamination.
- REC 4. SEI identified 20 potential waste disposal pits across six areas of the former lab, with approximately 6,600 cubic yards of impacted soil and waste material excavated and disposed of at a landfill. While confirmatory sampling concluded that volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PNAs), and metal concentrations were below GRCC, the historical disposal of laboratory waste and significant excavation activities present potential subsurface contamination risks that warrant further evaluation.

REC 5. Investigations by Radian in 1999 identified sediment contamination in the stormwater retention pond and the associated drainage ditch. Additionally, groundwater samples MW-2, MW-3, and MW-4 contained lead concentrations (5 to 49 parts per billion [ppb]) exceeding GRCC for drinking water. Follow-up sampling in 2004 confirmed lead exceedances in MW-3, but later low-flow sampling techniques in 2005 did not detect lead. While EGLE acknowledged the possibility that previous detections were anomalies, the historical presence of lead contamination in groundwater and sediment remains a REC due to the potential for residual impact.

REC 6. Biosolids appear to have been applied to the Subject Property as an agricultural nutrient booster. The biosolids were applied by Biotech Agronomics, Inc. and they were sourced from the Pontiac WWTP. The obtained biosolids application notification was issued on May 29, 2014. The biosolids were tested for arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, zinc, nitrogen, phosphorus, and potassium. The biosolids do not appear to have been tested for PFAS, which is now known to be spread through biosolids from WWTPs.

0 and 2990 Tooley Road, Parcel IDs 4706-22-100-001 and 4706-15-300-002

REC 7. The South Branch Shiawassee River transects the eastern portion of the Subject Property. This segment of the river is part of an 8-mile Super Fund Site caused by polychlorinated biphenyls (PCBs) contamination from historical discharges at the upstream former Cast Forge Company. Sediment samples collected from the Subject Property (T-168 to T-175 on Parcel -002 and T-186 to T-194 on Parcel -001) revealed PCBs concentrations below the Record-of-Decision cleanup threshold of 5 milligrams per kilogram (mg/kg), with the highest detected concentration being 0.692 mg/kg. While current levels meet regulatory standards, continued monitoring was recommended due to the site's location within the contamination zone. Institutional controls, including land-use restrictions and fish consumption advisories, appear to be in effect for the contaminated zone. Soil disturbance or excavation in the contaminated zone may require regulatory review and adherence to safety protocols.

Additionally, PFAS have been more recently detected at the upstream source, so their presence in the watershed introduces further environmental concern.

REC 8. Biosolids appear to have been applied to the Subject Property as an agricultural nutrient booster. The biosolids were applied by Biotech Agronomics, Inc. and they were sourced from the Pontiac WWTP. The obtained biosolids application notification was issued on May 29, 2014. The biosolids were tested for arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, zinc, nitrogen, phosphorus, and potassium. The biosolids do not appear to have been tested for PFAS, which is now known to be spread through biosolids from WWTPs.

REC 9. The Subject Property was initially included in a BEA from 2004 that covered a 207-acre site formerly operated by Difco Lab. The report was revised to a smaller fraction that is approximately 8.6 acres. The Subject Property is not included in the revised area; however, no sampling was conducted on the Subject Property to distinguish or verify its condition.

REC 10. ASTI observed three relatively small dump sites at the edge of the farmland approaching the South Branch Shiawassee River. The location is west of the former farm on Tooley Road, so the area appears to have been a farm dump. Two of the dumps were approximately 30-square-feet in size. Within the dumps and in the immediate area, ASTI observed three deteriorated vehicles and three 55-gallon metal drums. All observed drums were empty, but the drums were old and rusty, so there is potential for a related leak. Approximately 15 smaller containers, ranging in size from less than one quart to over 10 gallons, were observed. Some of the smaller containers appeared to have been related to paint and motor oil storage while others were for food. General rubbish included appliances and other miscellaneous items. Some of the observed items were sunken into the ground, suggesting they had been discarded a long time ago or intentionally buried. Based on observations, there is potential for a release at the dumps.

The purpose of the Limited Phase II ESA was to identify if environmental impacts have occurred to the Subject Property from the above listed RECs.

2.2 Historical Uses of the Subject Property

Based on the Phase I ESA research, the historical Subject Property use is described below.

0 Bowen Road

This portion of the Subject Property has primarily been used for agricultural purposes since at least 1907. In the early 1900s, what appears to have been a dwelling is present, but it was demolished by 1937.

2755 Tooley Road

The southeast portion of 2755 Tooley Road contained a small farmhouse, barn, silo, and root cellar comprising a small farm compound from at least 1907 until 1963. A small 500-gallon gasoline underground storage tank (UST) used for fueling farm equipment was located adjacent to the farmhouse. Difco Laboratories purchased the property to operate a small diagnostic research laboratory from 1963 until 1988. Several of the former buildings associated with the former farm and laboratory were subsequently razed; however, some dilapidated structures (storage sheds, root cellar, etc.) remain but have not been used since the late 1980s. Difco Laboratory's primary activity was the production of antibiotic-impregnated paper disks in spring-loaded plastic dispensing cartridges. The remainder of the Subject Property has been farmland since at least 1907.

0 and 2990 Tooley Road

This portion of the Subject Property has primarily been used as farmland since at least 1937. A dwelling and associated outbuildings were located on the southwest portion of Parcel 06-15-300-002 from at least 1937 until their demolition in 2020. A sewer pump station was constructed near the southern boundary of Parcel 06-15-300-001 by the late 2000s. The South Branch Shiawassee River runs along the northeast portion of Parcel 06-15-300-002 and east portion of Parcel 06-15-300-001.

2.3 Current Uses of the Subject Property

The Subject Property is used for agricultural purposes.

2.4 Existing Infrastructure Features

No structures are present at the Subject Property. Potable water, sewerage, and storm water utilities are available to the Subject Property from Howell Township. Electrical services are available to the area of the Subject Property through DTE Energy and natural gas services are available through Consumers Energy.

3.0 SAMPLING LOCATIONS

On May 8 and 9, 2025, ASTI oversaw the completion of 16 soil borings (SB-1 through SB-6, MW-7 through MW-10, SB-11 through SB-14, and MW-14 through MW-15) at the Subject Property. The soil borings were advanced to various depths between 10 and 20 feet below ground surface (bgs) using a direct-push Geoprobe® drill rig. Groundwater was encountered in soil borings SB-3, SB-4, SB-6, MW-7, MW-8, MW-9, MW-10, SB-14, and MW-15. Temporary monitoring wells were installed, and one groundwater sample was collected from each well except the temporary wells at SB-6 and MW-14, which did not produce a sufficient volume of groundwater to collect samples from. Additionally, on May 12 and 13, 2025, ASTI collected three incremental samples using Incremental Sampling Methodology (ISM) within the agricultural fields across the four parcels at the Subject Property. On May 13, 2025, ASTI also oversaw the completion of two test trenches for the purpose of investigating potential waste disposal pits created by former Difco lab operations and collected samples from the bottom of the trenches. A Sample Location Map is provided as Figure 2.

Boring/sample IDs, boring/sample locations, and depths were as follows:

Boring/Sample ID	Boring/Sample Location	Depth of Boring (bgs)
DU-1	53 increments across the agricultural field at 2755 Tooley Road regarding placement of biosolids	1 foot
DU-2	52 increments across the agricultural field at 0 and 2990 Tooley Road regarding placement of biosolids	1 foot
DU-3	50 increments across the agricultural fields at 0 Bowen Road regarding placement of biosolids	1 foot
SB-1	Southeast portion of former Difco lab area at 2755 Tooley Road regarding the septic system leach field	20 feet

Boring/Sample ID	Boring/Sample Location	Depth of Boring (bgs)
SB-2	Southern portion of former Difco lab area at 2755 Tooley Road regarding the historical drainage ditch	20 feet
SB-3	Along the southern property boundary south of the former Difco lab area at 2755 Tooley Road along the stormwater detention ditch regarding historical impacts	10 feet
SB-4	East of the former Difco lab area at 2755 Tooley Road adjacent to the stormwater detention pond regarding historical impacts	10 feet
SB-5	North of the former Difco lab area at 2755 Tooley Road regarding historical waste disposal pits	15 feet
SB-6	Southern portion of the agricultural field at 2755 Tooley Road regarding placement of biosolids and historical impacts	20 feet
SB-11	Eastern portion of parcels at 0 and 2990 Tooley Road, east of the agricultural field regarding dump sites	4 feet
SB-12	Eastern portion of parcels at 0 and 2990 Tooley Road, east of the agricultural field regarding dump sites	4 feet
SB-13	Eastern portion of parcels at 0 and 2990 Tooley Road, east of the agricultural field regarding rusted and empty 55-gallon drums	3 feet
SB-14	Eastern portion of parcels at 0 and 2990 Tooley Road, east of the agricultural field regarding dumped automobiles	10 feet
MW-7	Northern portion of the agricultural field at 2755 Tooley Road regarding placement of biosolids	20 feet
MW-8	Southeast portion of parcels at 0 and 2990 Tooley Road, adjacent to the Shiawassee River regarding upstream historical PCBs and PFAS discharge. This location was as close to the river as ASTI could access due to flooding of the river.	5 feet
MW-9	Southern portion of the agricultural field at 0 and 2990 Tooley Road regarding placement of biosolids	10 feet
MW-10	Northern portion of the agricultural field at 0 and 2990 Tooley Road regarding placement of biosolids	10 feet
MW-14	Northern portion of the agricultural field at 0 Bowen Road regarding placement of biosolids	20 feet
MW-15	Central portion of the agricultural field at 0 Bowen Road regarding placement of biosolids	20 feet
Trench-1	Southwest corner of the former Difco lab area at the bottom of the trench regarding waste disposal pits	5 feet
Trench-2	Southwest corner of the former Difco lab area at the bottom of the trench regarding waste disposal pits	5 feet

4.0 SAMPLE COLLECTION PROCEDURES

ISM Sampling

ISM Sampling was conducted in accordance with EGLE's *Incremental Sampling Methodology and Applications* document, dated January 2018. Equal volumes of soil were collected from each increment using a stainless-steel slide-hammer ground probe. The samples were collected from the surface to 1-foot bgs. Each incremental soil sample was transferred from the probe directly into a bucket lined with a plastic bag. Each decision unit was kept separate from one another. Triplicate samples were collected from DU-3 (T-1 and T-2) for quality assurance/quality control (QA/QC) purposes. Sampling equipment was decontaminated with an Alconox® wash and clean water rinse between decision units and between the parent and triplicate samples to minimize the risk of cross contamination.

These samples were subsequently placed on ice and submitted to Merit Laboratories Inc. (Merit) in East Lansing, Michigan under standard chain-of-custody procedures, and analyses were conducted using ISM laboratory procedures. The soil samples were analyzed for arsenic, cadmium, lead, selenium, and mercury using US Environmental Protection Agency (EPA) Methods 6020A and 7471, and polynuclear aromatic hydrocarbons (PNAs) using US EPA Method 8270D.

Discrete Soil and Groundwater Sampling

Using the drill rig, soil was extracted from the ground in pre-cleaned, 5-foot-long, acetate liners. Soil encountered during field activities was identified by ASTI's field personnel, examined for visual and/or olfactory evidence of impact, and screened using a photoionization detector (PID), with notes recorded in a field logbook. Prior to sampling, the PID was calibrated to manufacturer specifications using 100 parts per million (ppm) isobutylene calibration gas. All down-hole equipment was decontaminated using an Alconox® wash and clean water rinse prior to and between borings to minimize the risk of cross contamination of the samples.

ASTI collected one or two soil samples from each soil boring. The soil samples were collected into laboratory certified clean, unpreserved 4-ounce glass jars and 40-milliliter (mL) glass vials

preserved with methanol that were subsequently placed on ice and submitted to Merit under standard chain-of-custody procedures.

Nine temporary monitoring wells were installed at the Subject Property. The wells were constructed using a one-inch diameter, five-foot long, 10-slot polyvinyl chloride (PVC) screen threaded onto a one-inch diameter PVC riser. The temporary wells at SB-6 and MW-14 did not produce a sufficient volume of groundwater to collect samples from. From the remaining temporary wells, groundwater was sampled using a peristaltic pump set at a flow rate of approximately 200 mL/minute. The groundwater samples were collected into two 40-mL glass vials preserved with hydrochloric acid, one 250-mL plastic bottle preserved with nitric acid, two unpreserved 15-mL centrifuge tubes, and an unpreserved 1-liter amber glass jar. The groundwater samples were also placed on ice and submitted to Merit under standard chain-of-custody procedures.

The soil and groundwater samples were analyzed for some combination of the following: VOCs by US EPA Method 8260C, PCBs by US EPA Method E608.3, PNAs by US EPA Method 8270D, PFAS by ASTM Method D7979-19M and the Michigan 10 metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc) by US EPA Method 6020A and 7471B (soil only) or 7470A (groundwater only).

Test Trenches

ASTI oversaw the completion of two test trenches for the purpose of investigating potential waste disposal pits created by former Difco lab operations. The two trenches were completed with an excavator operated by Republic Services in locations measured and staked out by ASTI. The trenches were excavated to a depth of 5 feet and were each approximately 2 feet wide by 100 feet long. One soil sample was collected from the bottom of each trench (Trench-1 and Trench-2). Trench soil samples were analyzed for VOCs, PNAs, and Michigan 10 metals using the US EPA methods listed above. Following sampling, the trenches were backfilled and returned to grade by Republic Services.

For quality assurance/quality control (QA/QC) purposes, two duplicate soil samples were collected. DUP-1S was collected from SB-4 (3.5-4'), and DUP-2S was collected from SB-5

(4-5'). One duplicate groundwater sample, DUP-1GW, was collected from MW-7. In addition, a methanol blank was maintained with the soil and groundwater samples during sampling and transport.

Sample depths, location rationale, and analyses are provided in the following table.

Boring	Sample Matrix	Sample Depth (feet bgs)	Rationale for sample depth	Analysis
SB-1	Soil	4-4.5	Shallow soils in septic system leach field	VOCs, PNAs, Michigan 10 Metals
	Soil	14-15	Deeper soils beneath septic system leach field	VOCs, PNAs, Michigan 10 Metals
SB-2	Soil	2-2.5	Shallow soils in historical drainage ditch	VOCs, PNAs, Michigan 10 Metals
	Soil	13-14	Deeper soils beneath historical drainage ditch	VOCs, PNAs, Michigan 10 Metals
SB-3	Soil	3.5-4	Above the water table and historical lead impacts	Lead
SB-4	Soil	3.5-4.5	Within fill soils above the water table and historical lead impacts	Lead
	Groundwater	Screened at 5-10	Historical lead impacts	Lead
SB-5	Soil	4-5	Bottom of fill soils above native sand	VOCs, PNAs, Michigan 10 Metals
MW-7	Groundwater	Screened at 15-20	Intersection of water table	PNAs, PFAS, arsenic, cadmium, lead, selenium, mercury
MW-8	Groundwater	Screened at 0-5	Intersection of water table	PCBs, PFAS
MW-9	Groundwater	Screened at 5-10	Intersection of water table	PNAs, PFAS, arsenic, cadmium, lead, selenium, mercury
MW-10	Groundwater	Screened at 5-10	Intersection of water table	PNAs, PFAS, arsenic, cadmium, lead, selenium, mercury

Boring	Sample Matrix	Sample Depth (feet bgs)	Rationale for sample depth	Analysis
SB-11	Soil	2.5-3	Within fill soil at a former dumping area	VOCs, PNAs, Michigan 10 Metals
SB-12	Soil	1-2	Shallow soil in a former dumping area	VOCs, PNAs, Michigan 10 Metals
	Soil	3-3.5	Deeper soils in a former dumping area	VOCs, PNAs, Michigan 10 Metals
SB-13	Soil	2.5-3	Shallow soil beneath empty rusted drum	VOCs, PNAs, Michigan 10 Metals
SB-14	Soil	3.5-4	Above water table	VOCs, PNAs, Michigan 10 Metals
	Groundwater	Screened at 5-10	Intersection of water table	VOCs, PNAs, Michigan 10 Metals
MW-15	Groundwater	Screened at 10-15	Intersection of water table	PNAs, PFAS, arsenic, cadmium, lead, selenium, mercury

5.0 PATHWAY EVALUATION

The EGLE GRCC used for comparison to the soil analytical for the Subject Property under Part 201 of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) are the drinking water protection (DWP), groundwater surface water interface protection (GSIP), direct contact (DC), finite source volatile soil inhalation (VSIC), soil volatilization to indoor air inhalation (SVIAI), and particulate soil inhalation (PSI). The groundwater samples were compared to the GRCC for drinking water (DW), groundwater surface water interface (GSI), and groundwater volatilization to indoor air inhalation (GVIAI).

The soil and groundwater analytical results were also compared to EGLE's residential volatilization to indoor air pathway (VIAP) screening levels (SLs), dated February 26, 2024.

6.0 SOIL AND GROUNDWATER CHARACTERISTICS

The following sections describe the encountered soil and groundwater conditions during the investigation.

6.1 Soil

The general subsurface lithology encountered beneath topsoil (where present) in the soil borings generally consisted of silty clay, silty sand, or clayey sand strata extending to the explored depth of the borings, with the maximum explored depth of 20 feet bgs in soil borings SB-6, MW-7, and MW-14. Soil fill was encountered in soil borings SB-4 and SB-5 (advanced in the area of the former Difco laboratory) from the surface to 4 feet and 5 feet bgs, respectively. The soil fill in SB-4 and SB-5 was a silty sand or silty clay and contained trace (less than 5 percent) amounts of metal and/or brick. The soil fill in SB-4 was underlain by a clayey sand stratum to the explored depth of 10 feet bgs. The soil fill in SB-5 was underlain by a silty sand stratum to the explored depth of 15 feet bgs. Soil fill was encountered in SB-11, in an area of historical dumping, from the surface to at least 4 feet bgs, which was the explored depth of that boring. The soil fill in SB-11 consisted of silty sand and contained trace to some (5 to 30 percent) amounts of brick, metal, and ceramic. No other staining or odors were noted in the soil borings, and no VOC readings were detected on the PID during screening of the soil cores.

The general subsurface lithology encountered in the test trenches consisted of a silty sand from the surface to a depth of 3.5 feet bgs that was underlain by a silty clay stratum to the explored depth of 5 feet bgs. Several boulders (0.5 to 1.5 feet in diameter) were observed at various depths throughout the trenches. No VOC readings, staining, odors, or non-natural materials were observed in soils assessed during trenching.

6.2 Groundwater

Groundwater was encountered in soil borings SB-3, SB-4, SB-6, MW-7 through MW-10, SB-14, MW-14, and MW-15. The depth to groundwater from the surface ranged from 1-foot bgs at MW-8 (approximately 140 feet west of the Shiawassee River, which was flooded at the time of the event) to 19 feet bgs at MW-14 (the furthest boring to the west of the Shiawassee River). The groundwater flow direction was not evaluated as a part of this investigation but is assumed to flow to the east towards the Shiawassee River.

For more detail on the encountered stratigraphy, refer to the boring logs included as Attachment A.

7.0 ANALYTICAL RESULTS

Soil Analytical

Table 1 presents the laboratory analytical results for the soil samples in comparison to the EGLE Part 201 GRCC and residential VIAP SLs. Table 2 presents the laboratory analytical results for the ISM soil samples in comparison to the EGLE Part 201 GRCC and residential VIAP SLs.

Metals

The laboratory analytical results reported arsenic in soil sample SB-5 (4-5') at a concentration exceeding the GRCC for DWP and GSIP. Arsenic also exceeded the GRCC for DWP and GSIP in samples SB-1 (4-4.5'), SB-2 (2-2.5'), Trench-1 (5'), and Trench-2 (5'). However, these four samples were collected in native and/or natural sand or clay soils. The Subject Property is located within the Saginaw Glacial Lobe. Following Part 324.20101(e)(ii) of NREPA Act 451 of 1994 for use of regional background, the regional background concentration for arsenic in sand and clay in the Saginaw Glacial Lobe from the 2015 Michigan Background Soil Survey is 22,800 micrograms per kilogram ($\mu\text{g}/\text{kg}$). The highest concentration of arsenic reported was 7,350 $\mu\text{g}/\text{kg}$ in soil sample SB-1 (4-4.5'). Therefore, the arsenic concentrations in samples SB-1 (4-4.5'), SB-2 (2-2.5'), Trench 1 (5'), and Trench 2 (5') are below the regional background concentration and do not represent exceedances of the GRCC nor evidence of a release.

Selenium was detected at concentrations exceeding the GRCC for GSIP in samples SB-2 (13-14') and Trench-1 (5'). However, these samples were also collected in native sand or clay. The Saginaw Glacial Lobe regional background concentration for selenium in sand and clay is 1,100 $\mu\text{g}/\text{kg}$. The highest concentration of selenium reported was 562 $\mu\text{g}/\text{kg}$ in sample Trench-1 (5'). Therefore, the selenium concentrations in these samples are below the regional background concentration and do not represent exceedances of the GRCC nor evidence of a release.

Other metals were detected in the soil samples, but at concentrations below the GRCC and VIAP SLs.

*PNA*s

No PNA

s were detected in the soil samples at or exceeding the laboratory reporting limits.

*VOC*s

The laboratory analytical results reported the VOC acetone in soil sample SB-13 (3.5-4') at a concentration that is less than the GRCC and residential VIAP SL. VOCs were not detected in the remaining soil samples at concentrations at or exceeding the laboratory reporting limits.

Groundwater Analytical

Table 3 presents the laboratory analytical results for the groundwater samples in comparison to the EGLE Part 201 GRCC and residential VIAP SLs.

Metals

Multiple metals were detected in the groundwater samples, but the reported concentrations do not exceed the GRCC or VIAP SLs.

*PNA*s, *VOC*s, and *PCB*s

No PNA

s, VOCs, or PCB were detected in the groundwater samples at or exceeding the laboratory reporting limits.

PFAS

The laboratory analytical results reported the PFAS compound perfluorobutanesulfonic acid (PFBS) in groundwater samples MW-9 and MW-10 at concentrations exceeding the GRCC for DWP. Multiple other PFAS were detected in the groundwater samples but did not exceed the GRCC.

Quality Assurance/Quality Control

The laboratory analytical results reported the duplicate soil and groundwater samples were within acceptable ranges of the associated parent samples. No VOCs were reported in the methanol blank at concentrations exceeding the laboratory reporting limits. The relative

standard deviation (RSD) between the ISM parent samples and replicates ranged from 2.3 percent to 6.8 percent, for analytes detected exceeding laboratory reporting limits, which is less than 30 percent, which EGLE indicates is generally precise enough to make decisions based on the data.

The Laboratory Analytical Reports and chain-of-custody documentation are provided in Attachment B.

8.0 CONCLUSIONS AND RECOMMENDATIONS

The laboratory analytical results for the soil and groundwater samples reported exceedances of the EGLE Part 201 GRCC for arsenic in soil and PFBS in groundwater. The arsenic exceedance in soil was collected at 2755 Tooley Road (parcel 4706-21-200-019), and the groundwater samples with PFBS exceedances were collected at 0 and 2990 Tooley Road (parcels 4706-22-100-001 and 4706-15-300-002). Therefore, based on the laboratory analytical results, it is ASTI's opinion that the Subject Property parcels with Parcel IDs 4706-21-200-019, 4706-22-100-001, and 4706-15-300-002 are "facilities" as defined in Part 201.

Arsenic was detected in soil sample SB-5 (4-5') at a concentration exceeding the GRCC for direct contact. The exposure scenario for the Subject Property, which is used as a municipal park, more closely resembles a nonresidential exposure scenario. ASTI used the equation for determining the direct contact criteria (per R 299.20 proposed 2017 revision) for arsenic using residential assumptions except for the ingestion and dermal exposure frequencies. These assumptions were replaced with the nonresidential exposure frequencies to better reflect the Subject Property use for recreational purposes. The resulting site-specific direct contact criteria was calculated to be 11,868 µg/kg. This calculated criterion is greater than the arsenic concentrations identified in the soil samples, as the highest reported arsenic concentration was 9,040 µg/kg in SB-5 (4-5'). The assumptions for the site-specific direct contact criteria calculation for arsenic are shown on Table 4 – Calculation of Site-Specific Direct Contact Criteria for Recreational Usage. In addition, this soil sample was collected in sand, only trace amounts of inert non-natural materials were observed in this soil, and the arsenic concentration in SB-5 (4-5') is less than the regional background concentration for arsenic in sand in the Saginaw Glacial Lobe. Therefore, based on the use of the Subject

Property, the concentration of arsenic detected in soil sample SB-5 (4-5') does not pose an unacceptable direct contact exposure risk to receptors at the Subject Property.

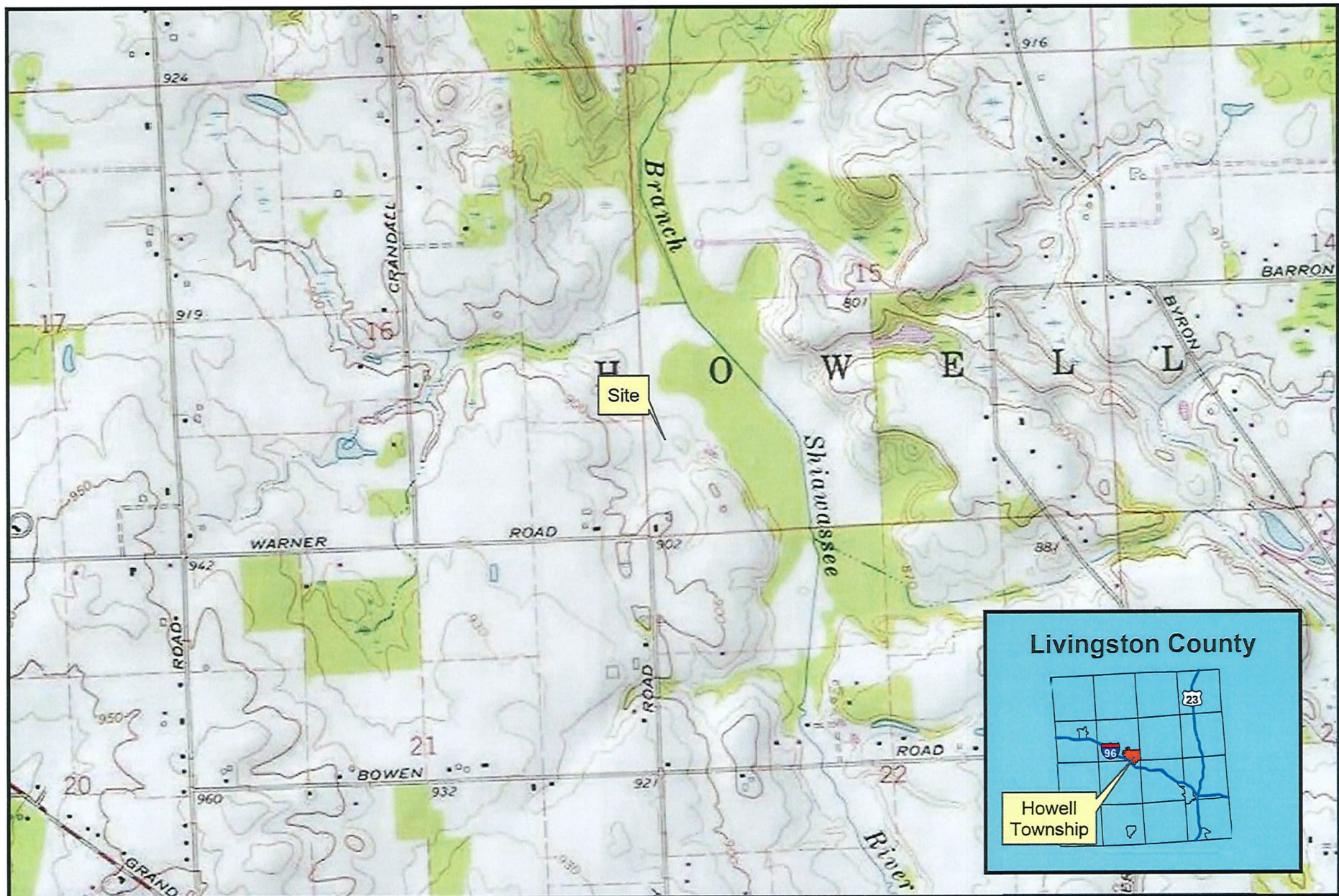
ASTI understands that Howell Township already owns the facility parcels. Owners or operators of a facility that have knowledge that it is a facility must comply with the following due care obligations:

- undertake measures as necessary to prevent exacerbation of the existing contamination.
- exercise due care by undertaking response activities necessary to mitigate unacceptable exposure to hazardous substances and to allow for the intended use of the facility in a manner that protects the public health and safety.
- take reasonable precautions against the foreseeable acts or omissions of a third party and the resultant consequences of those acts or omissions.
- provide reasonable cooperation/access to persons conducting cleanup
- comply with established land use or resource use restrictions
- refrain from interfering with restrictions or response activities

ASTI recommends that Howell Township have a Due Care Plan (DCP) completed for the Subject Property facility parcels to satisfy the owner and/or operator's Part 20107(a) due care obligations.

FIGURES

- 1 Site Location Map
- 2 Sample Location Map



0 Bowen Rd., 2755 Tooley Rd,
and 0 & 2990 Tooley Rd

Howell Twp., MI

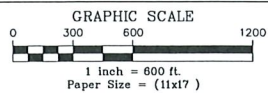
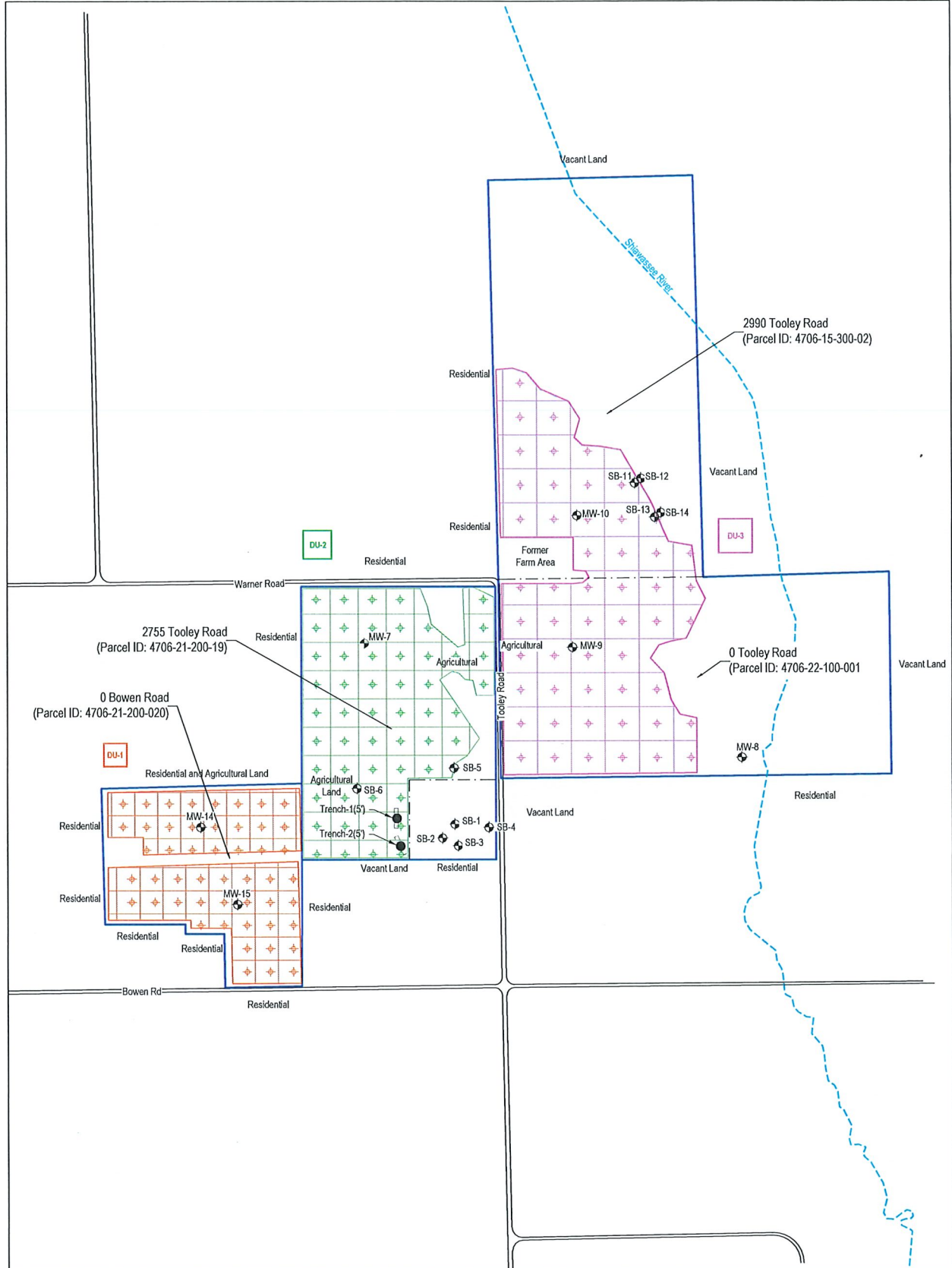
2,000 1,000 0 2,000
Feet



ASTI
ENVIRONMENTAL

Created for: Howell Township
Created by: RMH, June 20, 2025, ASTI Project A24-1988.01

Figure 1 - Site Location Map



LEGEND

- Approximate Property Boundary
- Adjacent Property Boundary
- Monitoring Well / Soil Boring Location
- Trench Sample Location
- Incremental Sample Location [0-1']
- Trench Location



0 Bowen Rd., 2755 Tooley Rd, and 0 & 2990 Tooley Rd.

Client: Howell Township
ASTI Project A24-1988.01, JRN, June 19, 2025

Howell Township, MI

Figure 2 - Sample Location Map



TABLES

- 1 Soil Sample Analytical Results
- 2 Incremental Sample Analytical Results
- 3 Groundwater Sample Analytical Results
- 4 Calculation of Site-Specific Direct Contact Criteria for Recreational Use

Table 1 - Soil Sample Analytical Results
0, 2755, and 2990 Tooley Road, and 0 Bowen Road, Howell Township, MI
ASTI Project No. A24-1988.01

	Michigan Background Soil Survey Saginaw Glacial Lobe Regional Background Concentration (Clay) µg/kg	Michigan Background Soil Survey Saginaw Glacial Lobe Regional Background Concentration (Sand) µg/kg	Residential Drinking Water Protection Criteria* µg/kg	Groundwater Surface Water Interface Protection Criteria* µg/kg	Residential Soil Volatilization to Indoor Air Inhalation Criteria* µg/kg	Residential Finite Source Volatile Soil Inhalation for 5 Meter Source Thickness* µg/kg	Residential Particulate Soil Inhalation Criteria* µg/kg	Site-Specific Direct Contact Criterion (SSDCC)** (µg/kg)	Residential Direct Contact Criteria* µg/kg	Volatilization to Indoor Air Pathway Screening Levels** µg/kg	SB-1 (4-4.8') 5/8/2025 Clay µg/kg	SB-1 (14-19') 5/8/2025 Sand µg/kg	SB-2 (2-2.5') 5/8/2025 Clay µg/kg	SB-2 (13-14') 5/8/2025 Sand µg/kg	SB-3 (3.5-4') 5/8/2025 Clay µg/kg	SB-4 (3.5-4') 5/8/2025 Fill µg/kg	DUP-1S SB-4 (3.5-4') 5/8/2025 Fill µg/kg	SB-5 (4-6') 5/8/2025 Fill µg/kg	DUP-2S SB-5 (4-6') 5/8/2025 Fill µg/kg	
Parameters	Background Levels* µg/kg																			
Metals																				
Arsenic	5,800	17,100	17,000	4,600	4,600	NLV	NLV	720,000	11,868	7,600 / 11,868 ***	NA	7,350	4,230	6,720	3,970	~	~	~	9,040	5,240
Barium	75,000	172,000	66,200	1,300,000	(G)	NLV	NLV	330,000,000	NA	37,000,000	NA	50,400	5,680	36,800	22,500	~	~	~	29,300	19,600
Cadmium	1,200	2,000	2,000	6,000	(G,X)	NLV	NLV	1,700,000	NA	550,000	NA	<200	<200	<200	<200	~	~	~	<200	<200
Chromium, Total	18,000 (total)	43,500	19,700	1,000,000,000 (D)	(G,X)	NLV	NLV	330,000,000	NA	790,000,000	NA	14,400	2,930	10,800	11,300	~	~	~	7,940	7,820
Chromium VI	NA	NA	NA	30,000	3,300	NLV	NLV	260,000	NA	2,500,000	NA	~	~	~	~	~	~	~	~	
Copper	32,000	32,200	20,200	5,800,000	(G)	NLV	NLV	130,000,000	NA	20,000,000	NA	17,700	5,930	11,600	11,800	~	~	~	11,200	9,330
Lead	21,000	38,900	18,000	700,000	(G,X)	NLV	NLV	100,000,000	NA	400,000	NA	7,560	3,260	8,960	4,220	8,080	15,700	11,500	7,930	8,290
Mercury	130	500	230	1,700	50 (M); 1.2	48,000	52,000	20,000,000	NA	160,000	22 (M)	<50	<50	<50	<50	~	~	~	<50	<50
Selenium	410	1,100	1,100	4,000	400	NLV	NLV	130,000,000	NA	2,600,000	NA	<400	<400	<400	<400	~	~	~	<400	<400
Silver	1,000	1,000	1,400	4,500	100 (M); 27	NLV	NLV	6,700,000	NA	2,500,000	NA	<200	<200	<200	<200	~	~	~	<200	<200
Zinc	47,000	91,900	73,600	2,400,000	(G)	NLV	NLV	ID	NA	170,000,000	NA	40,700	24,300	40,200	27,600	~	~	~	40,600	29,600
Polynuclear Aromatic Hydrocarbons (PNAs)																				
All Analyzed PNAs	NA	NA	NA	CS	CS	CS	CS	CS	CS	CS	<RL	<RL	<RL	<RL	~	~	~	<RL	<RL	
Volatile Organic Compounds (VOCs)																				
Acetone	NA	NA	NA	15,000	34,000	290,000,000 (C)	130,000,000	390,000,000,000		23,000,000	260,000	<1,000	<1,000	<1,000	<1,000	~	~	~	<1,000	<1,000
Remaining Analyzed VOCs	NA	NA	NA	CS	CS	CS	CS	CS	CS	CS	<RL	<RL	<RL	<RL	~	~	~	<RL	<RL	

µg/kg - micrograms per kilogram

*Generic Residential Cleanup Criteria (GRCC) per R299.46, October 12, 2023

**Volatilization to Indoor Air Pathway Screening Levels (VIAP SLs) per VI Guidance Document, updated February 26, 2024

***Calculated Site-Specific Direct Contact Criterion for Arsenic in Soil (see Table 4)

Bold and highlighted results exceed one or more GRCC and/or the VIAP SL.

Italicized results in blue text exceed the GRCC but were samples collected in native/natural sand or clay and were compared to and found to be below the regional background concentration

† Per 2005 Michigan Background Soil Survey, Updated 2015

~ Parameter not tested for at this location.

CS - Compound specific.

<RL - Not detected. Below the laboratory reporting limit.

NA - Not available.

NLV - Hazardous substance is not likely to volatilize under most conditions.

C - Value presented is a screening level based on the chemical-specific generic soil saturation

concentration (Csat)

D - Calculated criterion exceeds 100%, hence it is reduced to 100% or 1.0e+9 ppb.

G - Groundwater Surface Water Interface (GSI) criterion depends on the pH or water hardness, or both,

of the receiving surface water.

M - Calculated criterion is below the analytical target detection limit, therefore, the

criteria defaults to the target detection limit.

X - The Groundwater Surface Water Interface (GSI) criterion shown in the generic cleanup criteria tables is not protective

for surface water that is used as a drinking water source.

Table 1 - Soil Sample Analytical Results
0, 2755, and 2990 Tooley Road, and 0 Bowen Road, Howell Township, MI
ASTI Project No. A24-1988.01

Parameters	Statewide Default Background Levels* µg/kg	Michigan Background Soil Survey Saginaw Glacial Lobe Regional Background Concentration (Clay) µg/kg	Michigan Background Soil Survey Saginaw Glacial Lobe Regional Background Concentration (Sand) µg/kg	Residential Drinking Water Protection Criteria* µg/kg	Groundwater Surface Water Interface Protection Criteria* µg/kg	Residential Soil Volatilization to Indoor Air Inhalation Criteria* µg/kg	Residential Finite Source Volatile Soil Inhalation for 5 Meter Source Thickness* µg/kg	Residential Particulate Soil Inhalation Criteria* µg/kg	Site-Specific Direct Contact Criterion (SSDCC)** (µg/kg)	Residential Direct Contact Criteria* µg/kg	Volatilization to Indoor Air Pathway Screening Levels** µg/kg	SB-11 (2,5-3') 5/9/2025 Fill µg/kg	SB-12 (1-2') 5/9/2025 Sand µg/kg	SB-12 (3-3.5') 5/9/2025 Sand µg/kg	SB-13 (3.5-4') 5/9/2025 Sand µg/kg	SB-14 (3.5-4') 5/9/2025 Sand µg/kg	Methanol Blank 5/9/2024 µg/kg	Trench-1 (8') 5/13/2025 Clay µg/kg	Trench-2 (8') 5/13/2025 Clay µg/kg	Methanol Blank 5/13/2025 µg/kg
Metals																				
Arsenic	5,800	17,100	17,000	4,600	4,600	NLV	NLV	720,000	11,868	7,600 / 11,868 ***	NA	1,160	1,280	1,110	2,260	790	~	6,950	8,399	~
Barium	75,000	172,000	66,200	1,300,000	(G)	NLV	NLV	330,000,000	NA	37,000,000	NA	20,100	20,000	17,600	22,500	21,300	~	73,300	24,700	~
Cadmium	1,200	2,000	2,000	6,000	(G,X)	NLV	NLV	1,700,000	NA	550,000	NA	<200	<200	<200	<200	<200	~	<200	<200	~
Chromium, Total	18,000 (total)	43,500	19,700	1,000,000,000 (D)	(G,X)	NLV	NLV	330,000,000	NA	790,000,000	NA	3,150	2,690	5,640	5,970	2,510	~	21,300	8,420	~
Chromium VI	NA	NA	NA	30,000	3,300	NLV	NLV	260,000	NA	2,500,000	NA	~	~	~	~	~	~	<1,000	~	~
Copper	32,000	32,200	20,200	5,800,000	(G)	NLV	NLV	130,000,000	NA	20,000,000	NA	1,290	1,680	2,090	3,360	970	~	18,200	8,880	~
Lead	21,000	39,900	18,000	700,000	(G,X)	NLV	NLV	100,000,000	NA	400,000	NA	2,400	6,120	4,830	3,350	2,350	~	8,200	4,650	~
Mercury	130	500	230	1,700	50 (M); 1.2	48,000	52,000	20,000,000	NA	160,000	22 (M)	<50	<50	<50	<50	<50	~	<50	<50	~
Selenium	410	1,100	1,100	4,000	400	NLV	NLV	130,000,000	NA	2,600,000	NA	<400	<400	<400	<400	<400	~	562	<400	~
Silver	1,000	1,000	1,400	4,500	100 (M); 27	NLV	NLV	6,700,000	NA	2,500,000	NA	<200	<200	<200	<200	<200	~	<200	<200	~
Zinc	47,000	91,900	73,600	2,400,000	(G)	NLV	NLV	ID	NA	170,000,000	NA	6,420	12,000	10,300	12,300	10,400	~	48,600	29,300	~
Polynuclear Aromatic Hydrocarbons (PNAs)																				
All Analyzed PNAs	NA	NA	NA	CS	CS	CS	CS	CS		CS	CS	<RL	<RL	<RL	<RL	<RL	~	<RL	<RL	~
Volatile Organic Compounds (VOCs)																				
Acetone	NA	NA	NA	15,000	34,000	290,000,000 (C)	130,000,000	390,000,000,000		23,000,000	260,000	<1,000	<1,000	<1,000	1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Remaining Analyzed VOCs	NA	NA	NA	CS	CS	CS	CS	CS		CS	CS	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL

µg/kg - micrograms per kilogram
*Generic Residential Cleanup Criteria (GRCC) per R299.46, October 12, 2023
**Volatilization to Indoor Air Pathway Screening Levels (VIAP SLs) per VI Guidance Document, updated February 26, 2024
***Calculated Site-Specific Direct Contact Criterion for Arsenic in Soil (see Table 4)
Bold and highlighted results exceed one or more GRCC and/or the VIAP SL.
Italicized results in blue text exceed the GRCC but were samples collected in native/natural sand or clay and were compared to and found to be below the regional background concentration
† Per 2005 Michigan Background Soil Survey, Updated 2015
~ Parameter not tested for at this location.
CS - Compound specific.
<RL - Not detected. Below the laboratory reporting limit.
NA - Not available.
NLV - Hazardous substance is not likely to volatilize under most conditions.
C - Value presented is a screening level based on the chemical-specific generic soil saturation concentration (Csat)
D - Calculated criterion exceeds 100%, hence it is reduced to 100% or 1.0e+9 ppb.
G - Groundwater Surface Water Interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water.
M - Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.
X - The Groundwater Surface Water Interface (GSI) criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source.

Table 2 - Incremental Soil Sample Analytical Results
0, 2755, and 2990 Tooley Road, and 0 Bowen Road, Howell Township, MI
ASTI Project No. A24-1988.01

Parameters	Statewide Default Background Levels*	Residential Drinking Water Protection Criteria*	Groundwater Surface Water Interface Protection Criteria*	Residential Soil Volatilization to Indoor Air Inhalation Criteria*	Residential Finite Source Volatile Soil Inhalation for 5 Meter Source Thickness*	Residential Particulate Soil Inhalation Criteria*	Residential Direct Contact Criteria*	Volatilization to Indoor Air Pathway Screening Levels**	DU-1 (0-1') 5/12/2025 Native Sand µg/kg	DU-2 (0-1') 5/13/2025 Native Sand µg/kg	DU-3 (0-1') 5/12/2025 Native Sand µg/kg	T-1 DU-3 (0-1') 5/12/2025 Native Sand µg/kg	T-2 DU-3 (0-1') 5/12/2025 Native Sand µg/kg
Metals													
Arsenic	5,800	4,600	4,600	NLV	NLV	720,000	7,600	NA	3,950	1,960	3,170	3,050	3,180
Cadmium	1,200	6,000	(G,X)	NLV	NLV	1,700,000	550,000	NA	<200	<200	<200	<200	<200
Lead	21,000	700,000	(G,X)	NLV	NLV	100,000,000	400,000	NA	9,430	5,790	8,180	9,360	8,690
Mercury	130	1,700	50 (M); 1.2	48,000	52,000	20,000,000	160,000	22 (M)	<50	<50	<50	<50	<50
Selenium	410	4,000	400	NLV	NLV	130,000,000	2,600,000	NA	<400	<400	<400	<400	<400
Polynuclear Aromatic Hydrocarbons (PNAs)													
All Analyzed PNAs	CS	CS	CS	CS	CS	CS	CS	CS	<RL	<RL	<RL	<RL	<RL

µg/kg - micrograms per kilogram
*Per R299.46, October 12, 2023
**Per VI Guidance Document, updated February 26, 2024
NA - Not available.
NLV - Hazardous substance is not likely to volatilize under most conditions.
G - Groundwater Surface Water Interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water.
M - Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.
X - The Groundwater Surface Water Interface (GSI) criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source.

Table 3 - Groundwater Sample Analytical Results
0, 2755, and 2990 Tooley Road, and 0 Bowen Road, Howell Township, MI
ASTI Project No. A24-1988.01

Parameters	Residential Drinking Water Criteria*	Groundwater Surface Water Interface Criteria*	Residential Groundwater Volatilization to Indoor Air Inhalation Criteria*	Residential Volatilization to Indoor Air Pathway Screening Levels**	SB-4-GW 5/9/2025 µg/L	MW-7 5/9/2025 µg/L	DUP-1-GW MW-7 5/9/2025 µg/L	MW-8 5/9/2025 µg/L	MW-9 5/9/2025 µg/L	MW-10 5/9/2025 µg/L	SB-14-GW 5/9/2025 µg/L	MW-15 5/9/2025 µg/L
Metals												
Arsenic	10 (A)	10	NLV	NA	~	<2	<2	~	<2	<2	2	4
Barium	2,000 (A)	(G)	NLV	NA	~	~	~	~	~	~	27	~
Cadmium	5.0 (A)	(G,X)	NLV	NA	~	<0.5	<0.5	~	<0.5	<0.5	<0.5	<0.5
Chromium	100 (A)	11	NLV	NA	~	~	~	~	~	~	<5	~
Copper	1,000 (E)	(G)	NLV	NA	~	~	~	~	~	~	<5	~
Lead	4.0 (L)	(G,X)	NLV	NA	<3	<3	<3	~	<3	<3	<3	<3
Mercury	2 (A)	0.0013	56 (S)	0.088	~	<0.2	<0.2	~	<0.2	<0.2	<0.2	<0.2
Selenium	50 (A)	5	NLV	NA	~	<5	<5	NLV	<5	<5	<5	<5
Silver	34	0.2 (M)	NLV	NA	~	~	~	~	~	~	<0.5	~
Zinc	2,400	(G)	NLV	NA	~	~	~	~	~	~	7	~
Per- and Polyfluoroalkyl Substances (PFAS)												
Perfluorobutanoic acid (PFBA)	NA	NA	ID	NA	~	<10	<11	<10	13	69	~	<11
Perfluoropentanoic acid (PFPeA)	NA	NA	ID	NA	~	<4	<4.3	<4.1	27	86	~	<4.3
Perfluorohexanoic acid (PFHxA)	400,000 (A)	NA	ID	NA	~	<2	<2.2	<2.1	31	27	~	<2.2
Perfluorobutanesulfonic acid (PFBS)	420 (A)	670,000 (X)	ID	NA	~	7.5	8.7	<2.1	460	550	~	21
Perfluoroheptanoic acid (PFHpA)	NA	NA	ID	NA	~	<2	<2.2	<2.1	4.2	<2.1	~	<2.2
Perfluorooctanoic acid (PFOA)	8 (A)	170 (X)	ID	NA	~	<2	<2.2	<2.1	6.2	<2.1	~	<2.2
Perfluorohexanesulfonic acid (PFHxS)	51 (A)	210 (X)	ID	NA	~	<2	<2.2	<2.1	<2	2.5	~	<2.2
Perfluorooctanesulfonic acid (PFOS)	16 (A)	12 (X)	NLV	NA	~	<2	<2.2	<2.1	5.1	<2.1	~	<2.2
Perfluorooctanesulfonic acid linear (PFOS-LN)	NA	NA	NA	NA	~	<2	<2.2	<2.1	3.5	<2.1	~	<2.2
Remaining Analyzed PFAS	CS	CS	CS	CS	~	<RL	<RL	<RL	<RL	<RL	~	<RL
Polychlorinated Biphenyls (PCBs)												
All Analyzed PCBs	CS	CS	CS	CS	~	~	~	<RL	~	~	~	~
Polynuclear Aromatic Hydrocarbons (PNAs)												
All Analyzed PNAs	CS	CS	CS	CS	~	<RL	<RL	~	<RL	~	<RL	<RL
Volatile Organic Compounds (VOCs)												
All Analyzed VOCs	CS	CS	CS	CS	~	~	~	~	~	~	<RL	~

µg/L = micrograms per liter

ng/L = nanograms per liter

*Generic Residential Cleanup Criteria (GRCC) per R299.46, October 12, 2023

**Volatilization to Indoor Air Pathway Screening Levels (VIAP SLs) per VI Guidance Document, updated February 26, 2024

NA - Not available.

NLV - Hazardous substance is not likely to volatilize under most conditions.

A - Criterion is the State of Michigan drinking water standard established pursuant to Section 5.

E-Criterion is the aesthetic drinking water value, as required by Section 20120a(5) of the act.

G - Groundwater Surface Water Interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water.

L-Criteria for lead are derived using a biologically based model, as allowed for under Section 20120a(10)

of the act, and are not calculated using the algorithms and assumptions specified in pathway-specific rules.

S-Criterion defaults to the hazardous substance-specific water solubility limit.

M-Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.

X-The Groundwater Surface Water Interface (GSI) criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as drinking water source.

CS - Compound specific.

<RL - Not detected. Below the laboratory reporting limit.

Bold/highlighted results exceed the GRCC and/or VIAP SL

Table 4 - Calculation of Site-Specific Direct Contact Criteria for Recreational Use

0, 2755, and 2990 Tooley Road, and 0 Bowen Road, Howell Township, MI

ASTI Project No. A24-1988.01

Compound	Site-Specific Direct Contact Criterion (SSDCC)											
	TR	AT	CF	SFo	EFi	IF	AEi	SFd	EFd	DF	AEd	
	(unitless)	(days)	(μg/kg)	((mg/kg-day) ⁻¹)	(days/year)	(mg-yr/kg-day)	(unitless)	((mg/kg-day) ⁻¹)	(days/year)	(mg-yr/kg-day)	(unitless)	
Arsenic [^]	11,868	1.0E-05	25,550	1.0E+09	1.5	245	101	0.5	1.5	160	425	0.03

Notes:

μg/kg = micrograms per kilogram

SSDCC = (TR*AT*CF)/((SF*EFi*IF*AEi*RBA)+(SF*EFd*DF*AEd)) for chemicals with carcinogenic effects per R 299.20 proposed 2017 revision

TR = Target Risk Level (Carcinogens)

AT = Averaging Time

CF = Conversion Factor

SFo = Oral Slope Factor

SFd = Dermal Slope Factor

EFi = Ingestion Exposure Frequency

IF = Age-adjusted Soil Ingestion Factor

AEi = Ingestion Absorption Efficiency

EFd = Dermal Exposure Frequency

DF = Age-adjusted Soil Dermal Factor

AEd = Dermal Absorption Efficiency

[^] = SSDCC is based on carcinogenic effects

ATTACHMENTS

Attachment A
Soil Boring Logs



Boring ID:

SB-1

Site Address: 2755 Tooley Rd
 Howell Township, MI, 48855 Size: N/A
 Driller: Metiri Group Type: N/A
 Drilling Method: Direct Push Screen Length: N/A
 ASTI Geologist: BTM Well Depth: N/A
 Total Depth: 20 feet bgs Depth to GW: N/A

Client: Jonathan Hohenstein

Project Name: 2755 Tooley Road

Project Number: A24-1988.01

Date Completed: 5/8/2025

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY fine to coarse SAND: trace organics, dark brown, moist, medium dense (sandy loam)	0	Soil at 4-4.5'	100
1		CLAYEY very fine to very coarse SAND: trace 0.75" gravel, brown, moist, loose (sandy clay loam)	0		
2			0		
3			0		
4		SILTY fine to coarse SAND: trace 1" gravel, gray, moist, loose (sandy loam)	0	Soil at 14-15'	70
5			0		
6			0		
7		SILTY fine to coarse SAND: trace 0.75" gravel, brown, moist, loose (sandy loam)	0		
8			0		
9			0		
10		SILTY fine to coarse SAND: brown, dry, very dense (sandy loam)	0		
11			0		
12			0		
13		SILTY fine to coarse SAND: brown, moist, loose (sandy loam)	0		
14			0		
15			0		
16		END OF BORING	0		
17			0		
18			0		
19			0		
20			0		

Comments:

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

SB-2

Site Address: 2755 Tooley Rd
 Howell Township, MI, 48855
 Size: N/A
 Driller: Metiri Group
 Type: N/A
 Project Name: 2755 Tooley Road
 Drilling Method: Direct Push
 Screen Length: N/A
 Project Number: A24-1988.01
 ASTI Geologist: BTM
 Well Depth: N/A
 Date Completed: 5/8/2025
 Total Depth: 20 feet bgs
 Depth to GW: N/A

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY fine to coarse SAND: trace organics and gravel, dark brown, moist, medium dense (sandy loam)	0		
1					
2		SILTY CLAY: trace to some fine-grained sand, trace gravel, brown, soft (silty clay)		Soil at 2-2.5'	75
3			0		
4					
5			0		
6					
7			0		100
8					
9		SILTY CLAY: trace fine-grained sand, brown, medium stiff(silty clay)	0		
10					
11			0		
12					
13		CLAYEY very fine to very coarse SAND: brown, moist, dense (sandy clay loam)	0	Soil at 13-14'	100
14		SILTY CLAY: gray, stiff(silty clay)			
15			0		
16					
17			0		100
18					
19			0		
20		END OF BORING			

Comments:

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

SB-3

Site Address: 2755 Tooley Rd
 Howell Township, MI, 48855
 Size: N/A
 Driller: Metiri Group
 Type: N/A
 Project Name: 2755 Tooley Road
 Drilling Method: Direct Push
 Screen Length: N/A
 Project Number: A24-1988.01
 ASTI Geologist: BTM
 Well Depth: N/A
 Date Completed: 5/8/2025
 Total Depth: 10 feet bgs
 Depth to GW: 4 feet bgs

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY fine to coarse SAND: trace organics, black to dark brown, moist, dense (sandy loam)			
1		SILTY CLAY: trace coarse-grained sand and gravel, brown, soft(silty clay)	0		
2					
3			0		
4		CLAYEY very fine to very coarse SAND: brown, wet, loose (sandy loam)		Soil at 3.5-4'	
5			0		
6					
7			0		
8					
9			0		
10		END OF BORING			100

Comments:

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

SB-4

Site Address: 2755 Tooley Rd
 Howell Township, MI, 48855
 Client: Jonathan Hohenstein
 Driller: Metiri Group
 Project Name: 2755 Tooley Road
 Drilling Method: Direct Push
 Project Number: A24-1988.01
 ASTI Geologist: BTM
 Date Completed: 5/8/2025
 Total Depth: 10 feet bgs
 Size: 1-inch
 Type: PVC
 Screen Length: 5'
 Well Depth: 10 feet bgs
 Depth to GW: 4 feet bgs

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY fine to coarse SAND: trace organics, black to dark brown, moist, dense, fill (sandy loam)			
1		SILTY CLAY: trace coarse-grained sand, gravel, and brick, brown, soft, fill (silty clay)	0		
2					
3			0		100
4				Soil at 3.5-4'	
5		CLAYEY very fine to very coarse SAND: brown, wet, loose (sandy loam)	0		
6					
7			0		100
8					
9			0		
10		END OF BORING			100

Comments:

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

SB-5

Site Address: 2755 Tooley Rd
 Howell Township, MI, 48855
 Size: N/A
 Client: Jonathan Hohenstein
 Driller: Metiri Group
 Type: N/A
 Project Name: 2755 Tooley Road
 Drilling Method: Direct Push
 Screen Length: N/A
 Project Number: A24-1988.01
 ASTI Geologist: BTM
 Well Depth: N/A
 Date Completed: 5/8/2025
 Total Depth: 15 feet bgs
 Depth to GW: N/A

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SANDY SILT: trace organics, brown, moist, medium dense, fill (sandy loam)			
1		SILTY fine SAND: trace metal, brick, and gravel, brown, moist, loose, fill (sandy loam)	0		
2					
3		CLAYEY fine to coarse SAND: trace brick, brown, moist, dense, fill (sandy clay loam)	0		75
4		SILTY fine to coarse SAND: trace gravel, brick, metal, brown, moist, medium dense, fill (sandy loam)		Soil at 4-5'	
5		SILTY very fine to very coarse SAND: brown, moist, very dense (sandy loam)	0		
6					
7			0		90
8					
9			0		
10					
11			0		
12					
13		SILTY coarse SAND: trace gravel, gray, wet, loose (sandy loam)	0		90
14					
15		END OF BORING			

Comments:

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

SB-6

Site Address: 2755 Tooley Rd

Howell Township, MI, 48855 Size: 1-inch

Client: Jonathan Hohenstein

Driller: Metiri Group

Type: PVC

Project Name: 2755 Tooley Road

Drilling Method: Direct Push

Screen Length: 5'

Project Number: A24-1988.01

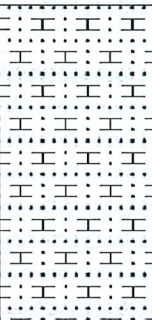
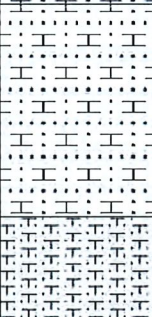
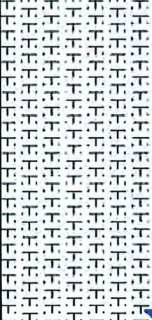
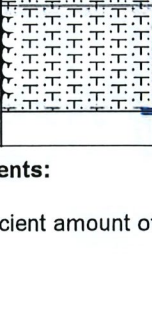

ASTI Geologist: BTM

Well Depth: 20 feet bgs

Date Completed: 5/8/2025

Total Depth: 20 feet bgs

Depth to GW: 18 feet bgs

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery	
0		SILTY CLAY: trace gravel, brown, medium soft(silty clay)	0		100	
1			0			
2						0
3			0		100	
4						0
5						0
6		SILTY CLAY: trace gravel, brown, soft(silty clay)	0		100	
7			0			
8						0
9			0		100	
10						0
11						0
12		SILTY fine to coarse SAND: trace gravel, brown, moist, dense (sandy loam)	0		80	
13			0			
14						0
15			0		80	
16						0
17						0
18		SILTY fine to coarse SAND: trace gravel, brown, wet, dense (sandy loam)	0		80	
19			0			
20						
		END OF BORING				

Comments:

insufficient amount of water to sample

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

MW-7

Site Address: 2755 Tooley Rd
 Howell Township, MI, 48855
 Client: Jonathan Hohenstein
 Driller: Metiri Group
 Project Name: 2755 Tooley Road
 Drilling Method: Direct Push
 Project Number: A24-1988.01
 ASTI Geologist: BTM
 Date Completed: 5/8/2025
 Total Depth: 20 feet bgs
 Size: 1-inch
 Type: PVC
 Screen Length: 5'
 Well Depth: 20 feet bgs
 Depth to GW: 17.5 feet bgs

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery	
0		SILTY CLAY: trace gravel, brown, medium soft (silty clay)	0		80	
1			0			
2			0			
3			0			
4			0		80	
5			0			
6			0			
7			0			
8		SILTY CLAY: trace gravel, brown, soft (silty clay)	0		80	
9			0			
10			0			
11			0			
12		SILTY fine to coarse SAND: trace gravel, brown, moist, dense (sandy loam)	0		80	
13						0
14						0
15						0
16		SILTY fine to coarse SAND: trace gravel, brown, wet, dense (sandy loam)	0		80	
17						0
18						0
19						0
20	END OF BORING					

Comments:

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture

➤ Groundwater Encountered at Depth



Boring ID:

MW-8

Site Address: 0 & 2990 Tooley Rd
 Howell Township, MI, 48855
 Size: 1-inch
 Driller: Metiri Group
 Type: PVC
 Project Name: 0 & 2990 Tooley Rd
 Drilling Method: Direct Push
 Screen Length: 5'
 Project Number: A24-1988.01
 ASTI Geologist: BTM
 Well Depth: 5 feet bgs
 Date Completed: 5/8/2025
 Total Depth: 5 feet bgs
 Depth to GW: 1 foot bgs

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY fine SAND: trace organics, black to dark brown, moist, dense (sandy loam)			
1		SILTY fine to coarse SAND: trace organics and gravel, brown, wet, loose (sandy loam)	0		
2					
3			0		
4			0		
5		END OF BORING			

Comments:

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

MW-9

Site Address: 0 & 2990 Tooley Rd
 Howell Township, MI, 48855
 Size: 1-inch
 Driller: Metiri Group
 Type: PVC
 Project Name: 0 & 2990 Tooley Rd
 Drilling Method: Direct Push
 Screen Length: 5'
 Project Number: A24-1988.01
 ASTI Geologist: BTM
 Well Depth: 10 feet bgs
 Date Completed: 5/8/2025
 Total Depth: 10 feet bgs
 Depth to GW: 5 feet bgs

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY fine to coarse SAND: brown, dry, loose(sandy loam)			
1			0		
2		SILTY fine SAND: trace gravel, brown, moist, loose (sandy loam)			
3			0		100
4		SILTY CLAY: trace fine-grained sand, brown, medium soft(silty clay)			
5		CLAYEY very fine to medium SAND: brown, wet, medium dense (sandy loam)	0		
6					
7			0		100
8					
9			0		
10		END OF BORING			

Comments:

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

MW-10

Site Address: 2755 Tooley Rd
 Howell Township, MI, 48855
 Size: 1-inch
 Driller: Metiri Group
 Type: PVC
 Project Name: 2755 Tooley Road
 Drilling Method: Direct Push
 Screen Length: 5'
 Project Number: A24-1988.01
 ASTI Geologist: BTM
 Well Depth: 10 feet bgs
 Date Completed: 5/8/2025
 Total Depth: 10 feet bgs
 Depth to GW: 7 feet bgs

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY fine to coarse SAND: brown, dry, loose(sandy loam)			
1		SILTY fine SAND: trace gravel, brown, moist, loose (sandy loam)	0		
2					
3			0		100
4					
5			0		
6					
7		SILTY fine SAND: trace gravel, brown, wet, loose (sandy loam)	0		100
8					
9			0		
10		END OF BORING			

Comments:

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

SB-11

Site Address: 0 & 2990 Tooley Rd
 Howell Township, MI, 48855 Size: N/A
 Driller: Metiri Group Type: N/A
 Drilling Method: Hand Auger Screen Length: N/A
 ASTI Geologist: BTM Well Depth: N/A
 Total Depth: 4 feet bgs Depth to GW: N/A

Client: Jonathan Hohenstein

Project Name: 0 & 2990 Tooley Rd

Project Number: A24-1988.01

Date Completed: 5/8/2025

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY very fine to coarse SAND: black, moist, loose, fill (sandy loam)			
-1		SILTY fine to very coarse SAND: trace to some brick, metal, and ceramic, brown, moist, loose, fill (sandy loam)	0		
-2					
-3			0	Soil at 2.5-3'	
-4		END OF BORING			

Comments:

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

SB-12

Site Address: 0 & 2990 Tooley Rd
 Howell Township, MI, 48855 Size: N/A
 Driller: Metiri Group Type: N/A
 Drilling Method: Hand Auger Screen Length: N/A
 ASTI Geologist: BTM Well Depth: N/A
 Total Depth: 4 feet bgs Depth to GW: N/A

Client: Jonathan Hohenstein

Project Name: 0 & 2990 Tooley Rd

Project Number: A24-1988.01

Date Completed: 5/8/2025

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY fine to coarse SAND: black, moist, loose (sandy loam)			
1		SILTY fine SAND: brown, moist, medium dense (sandy loam)	0	Soil at 1-2'	100
2					
3			0		
4		SILTY fine to coarse SAND: brown, moist, medium dense (sandy loam)		Soil at 3-3.5'	
		END OF BORING			

Comments:

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

SB-13

Site Address: 0 & 2990 Tooley Rd
 Howell Township, MI, 48855 Size: N/A
 Driller: Metiri Group Type: N/A
 Drilling Method: Hand Auger Screen Length: N/A
 ASTI Geologist: BTM Well Depth: N/A
 Total Depth: 3 feet bgs Depth to GW: N/A

Client: Jonathan Hohenstein

Project Name: 0 & 2990 Tooley Rd

Project Number: A24-1988.01

Date Completed: 5/8/2025

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY fine to coarse SAND: trace organics, black, moist, loose (sandy loam)	0		100
		SILTY fine to coarse SAND: light brown, moist, loose (sandy loam)			
1			0		
2			0	Soil at 2.5-3'	
3		END OF BORING			

Comments:

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

SB-14

Site Address: 0 & 2990 Tooley Rd
 Howell Township, MI, 48855
 Size: 1-inch
 Driller: Metiri Group
 Type: PVC
 Project Name: 0 & 2990 Tooley Rd
 Drilling Method: Direct Push
 Screen Length: 5'
 Project Number: A24-1988.01
 ASTI Geologist: BTM
 Well Depth: 10 feet bgs
 Date Completed: 5/8/2025
 Total Depth: 10 feet bgs
 Depth to GW: 4.5 feet bgs

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY fine to coarse SAND: trace organics, black, moist, loose (sandy loam)			
1		SILTY fine SAND: brown, moist, medium dense (sandy loam)	0		
2					
3			0		65
4				Soil at 3.5-4'	
5		SILTY fine to coarse SAND: brown, wet, loose (sandy loam)	0		
6					
7			0		100
8					
9			0		
10		END OF BORING			

Comments:

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

MW-14

Site Address: 2755 Tooley Rd
 Howell Township, MI, 48855
 Size: 1-inch
 Driller: Metiri Group
 Type: PVC
 Project Name: 2755 Tooley Road
 Drilling Method: Direct Push
 Screen Length: 5'
 Project Number: A24-1988.01
 ASTI Geologist: BTM
 Well Depth: 20 feet bgs
 Date Completed: 5/8/2025
 Total Depth: 20 feet bgs
 Depth to GW: 19 feet bgs

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0	[Pattern: Dotted]	SILTY very fine to medium SAND: trace gravel, brown, dry (silty clay)	0		100
1			0		
2	[Pattern: Dotted]	SILTY CLAY: trace gravel, brown, medium soft (silty clay)	0		100
3			0		
4			0		
5			0		
6			0		
7	[Pattern: Dotted]		0		100
8			0		
9			0		
10			0		
11	[Pattern: Dotted]	SILTY fine to coarse SAND: trace clay and gravel, brown, moist, dense (sandy loam)	0		75
12			0		
13			0		
14			0		
15			0		
16			0		
17	[Pattern: Dotted]		0		75
18			0		
19			0		
20		END OF BORING			

Comments:

insufficient amount of water to sample

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture



Boring ID:

MW-15

Site Address:

0 Bowen Road

Howell Township, MI, 48855

Size:

1-inch

Client: Jonathan Hohenstein

Driller:

Metiri Group

Type:

PVC

Project Name: 0 Bowen Road

Drilling Method:

Direct Push

Screen Length:

5'

Project Number: A24-1988.01

ASTI Geologist:

BTM

Well Depth:

15 feet bgs

Date Completed: 5/8/2025

Total Depth:

15 feet bgs

Depth to GW:

12 feet bgs

Depth (ft.)	Graphic Log	Lithologic Description	PID (ppm)	Sample Depth	% Recovery
0		Topsoil: SILTY fine to coarse SAND: trace organics, black, moist, loose (sandy loam)	0		
1			0		
2		SANDY CLAY: brown, moist, medium dense (sandy loam)	0		100
3			0		
4			0		
5			0		
6			0		
7			0		100
8			0		
9			0		
10		SILTY fine to very coarse SAND: trace gravel, brown, wet, dense (sandy loam)	0		
11			0		
12			0		75
13		SILTY coarse SAND: trace gravel, brown, wet, dense (sandy loam)	0		
14			0		
15		END OF BORING	0		

Comments:

ppm = parts per million MW = monitoring well bgs = below ground surface () = USDA soil texture

Attachment B

Laboratory Analytical Reports and Chain-of-Custody Documentation



Analytical Laboratory Report

Report ID: S74399.01(01)
Generated on 05/21/2025

Report to

Attention: Jeremy Efros
ASTI Environmental
10448 Citation Drive, Suite 100
Brighton, MI 48116

Phone: 810-360-9310 FAX:
Email: jefros@asti-env.com

Additional Contacts: Brad Buswell, Brady Metzger

Report produced by

Merit Laboratories, Inc.
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Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Lavery (johnlavery@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S74399.01-S74399.23
Project: A24-1988.01 2755, and 2990 Tooley Rd, and 0 Bowen Rd.
Collected Date(s): 05/08/2025 - 05/09/2025
Submitted Date/Time: 05/12/2025 13:40
Sampled by: Brady Metzger
P.O. #:

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Maya Murshak
Technical Director



Analytical Laboratory Report

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Starred (*) analytes are not NY NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)

PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."

Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.

Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.

For a specific list of accredited analytes, please feel free to contact the laboratory or visit <https://www.meritlabs.com/certifications>.

Report Narrative

There is no additional narrative for this analytical report



Analytical Laboratory Report

Laboratory Accreditations (For Reference Only)

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
I	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
o	Associated EIS outside of control limits
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
q	Qualifier ion ratio outside of control limits
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched



Analytical Laboratory Report

Method Summary

Method	Version
ASTMD7979-19M	ASTM Method D7979 - 19 Modified (Isotopic Dilution)
E200.8	EPA Method 200.8 Revision 5.4
E245.1	EPA Method 245.1 Revision 3.0
E608.3	EPA Method 608.3 December 2016
N/A	Not Applicable
SM2540B	Standard Method 2540 B 2020
SW3015A	SW 846 Method 3015A Revision 1 February 2007
SW3050B	SW 846 Method 3050B Revision 2 December 1996
SW3510C	SW 846 Method 3510C Revision 3 December 1996
SW3546	SW 846 Method 3546 Revision 0 February 2007
SW5030C/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5030C Revision 3 May 2003
SW5035A	SW 846 Method 5035A Revision 1 July 2002
SW5035A/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5035A Revision 1 July 2002
SW6020A	SW 846 Method 6020A Revision 1 February 2007
SW7471B	SW 846 Method 7471B Revision 2 February 2007
SW8270D	SW 846 Method 8270D Revision 4 February 2007



Analytical Laboratory Report

Parameter Summary

Parameter	Synonym	Cas #
PFBA	Perfluorobutanoic Acid	375-22-4
PFPeA	Perfluoropentanoic Acid	2706-90-3
4:2 FTSA	4:2 Fluorotelomer Sulfonic Acid	757124-72-4
PFHxA	Perfluorohexanoic Acid	307-24-4
PFBS	Perfluorobutane sulfonic Acid	375-73-5
PFHpA	Perfluoroheptanoic Acid	375-85-9
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4
6:2 FTSA	6:2 Fluorotelomer Sulfonic Acid	27619-97-2
PFOA	Perfluorooctanoic Acid	335-67-1
PFHxS	Perfluorohexane Sulfonic Acid	355-46-4
PFHxS-LN	Perfluorohexane Sulfonic Acid - LN	355-46-4-LN
PFHxS-BR	Perfluorohexane Sulfonic Acid - BR	355-46-4-BR
PFNA	Perfluorononanoic Acid	375-95-1
8:2 FTSA	8:2 Fluorotelomer Sulfonic Acid	39108-34-4
PFHpS	Perfluoroheptane Sulfonic Acid	375-92-8
PFDA	Perfluorodecanoic Acid	335-76-2
N-MeFOSAA	N-methyl perfluorooctanesulfonamidoacetic acid	2355-31-9
EtFOSAA	N-Ethyl Perfluorooctane Sulfonamidoacetic Acid	2991-50-6
PFOS	Perfluorooctane Sulfonic Acid	1763-23-1
PFOS-LN	Perfluorooctane Sulfonic Acid - LN	1763-23-1-LN
PFOS-BR	Perfluorooctane Sulfonic Acid - BR	1763-23-1-BR
PFUnDA	Perfluoroundecanoic Acid	2058-94-8
PFNS	Perfluorononane Sulfonic Acid	68259-12-1
PFDoDA	Perfluorododecanoic Acid	307-55-1
PFDS	Perfluorodecane Sulfonic Acid	335-77-3
PFTrDA	Perfluorotridecanoic Acid	72629-94-8
FOSA	Perfluorooctane Sulfonamide	754-91-6
PFTeDA	Perfluorotetradecanoic Acid	376-06-7
11Cl-PF3OUdS	11-chloroicosafuoro-3-oxaundecane-1-sulfonic acid	763051-92-9
9Cl-PF3ONS	9-chlorohexadecafluoro-3-oxanone1-sulfonic acid	756426-58-1
ADONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4
HFPO-DA	Hexafluoropropylene oxide dimer	13252-13-6
FHpPA (7:3 FTCA)	3-Perfluoroheptyl propanoic acid	812-70-4
FPePA (5:3 FTCA)	3-Perfluoropentyl propanoic acid	914637-49-3
FPrPA (3:3 FTCA)	3-Perfluoropropyl propanoic acid	356-02-5
NFDHA	Nonafluoro-3,6-dioxaheptanoic acid	151772-58-6
PFEESA	Perfluoro(2-ethoxyethane)sulfonic acid	113507-82-7
PFMBA	Perfluoro-4-methoxybutanoic acid	863090-89-5
PFMPA	Perfluoro-3-methoxypropanoic acid	377-73-1
NMeFOSAM	N-Methylperfluorooctanesulfonamide	31506-32-8
NMeFOSE	N-Methylperfluorooctanesulfonamidoethanol	24448-09-7
NEtFOSAM	N-Ethylperfluorooctanesulfonamide	4151-50-2
NEtFOSE	N-Ethylperfluorooctanesulfonamidoethanol	1691-99-2
PFDoS	Perfluorododecanesulfonic acid	79780-39-5



Analytical Laboratory Report

Sample Summary (23 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S74399.01	SB-1 (4-4.5)	Soil	05/08/25 09:44
S74399.02	SB-1 (14-15)	Soil	05/08/25 09:57
S74399.03	SB-2 (2-2.5)	Soil	05/08/25 10:25
S74399.04	SB-2 (13-14)	Soil	05/08/25 10:40
S74399.05	SB-3 (3.5-4)	Soil	05/08/25 11:00
S74399.06	SB-4 (3.5-4)	Soil	05/08/25 12:00
S74399.07	SB-5 (4-5)	Soil	05/08/25 12:40
S74399.08	MW-7	Groundwater	05/09/25 13:35
S74399.09	MW-8	Groundwater	05/09/25 12:40
S74399.10	MW-9	Groundwater	05/09/25 11:20
S74399.11	MW-10	Groundwater	05/09/25 10:55
S74399.12	SB-11 (2.5-3')	Soil	05/09/25 09:45
S74399.13	SB-12 (3-3.5)	Soil	05/09/25 10:05
S74399.14	SB-12 (1-2)	Soil	05/09/25 10:26
S74399.15	SB-13 (3.5-4)	Soil	05/09/25 10:13
S74399.16	SB-14 (3.5-4)	Soil	05/09/25 09:30
S74399.17	SB-14-GW	Groundwater	05/09/25 09:45
S74399.18	SB-4-GW	Groundwater	05/09/25 13:02
S74399.19	MW-15	Groundwater	05/09/25 14:35
S74399.20	DUP-1S	Soil	05/08/25 00:01
S74399.21	DUP-2S	Soil	05/08/25 00:01
S74399.22	DUP-1-GW	Groundwater	05/09/25 00:01
S74399.23	Methanol Blank	Methanol	05/09/25 00:01



Analytical Laboratory Report

Lab Sample ID: S74399.01

Sample Tag: SB-1 (4-4.5)

Collected Date/Time: 05/08/2025 09:44

Matrix: Soil

COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	
PNA Extraction*	Completed	SW3546	05/14/25 16:00	PTW	
Sample wt. (g) / Methanol (ml)*	11.050/11	SW5035A	05/12/25 16:33	ACK	
Mercury Digestion	Completed	SW7471B	05/13/25 13:00	CTV	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	85	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 12:24, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	7,350	200		ug/kg	248	7440-38-2	
Barium	50,400	1,000		ug/kg	248	7440-39-3	
Cadmium	Not detected	200		ug/kg	248	7440-43-9	
Chromium	14,400	500		ug/kg	248	7440-47-3	
Copper	17,700	500		ug/kg	248	7440-50-8	
Lead	7,560	300		ug/kg	248	7439-92-1	
Selenium	410	400		ug/kg	248	7782-49-2	
Silver	Not detected	200		ug/kg	248	7440-22-4	
Zinc	40,700	500		ug/kg	248	7440-66-6	

Method: SW7471B, Run Date: 05/13/25 15:51, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	50		ug/kg	64	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 18:18, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	



Analytical Laboratory Report

Lab Sample ID: S74399.01 (continued)

Sample Tag: SB-1 (4-4.5)

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 18:18, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 21:21, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	67.4	60-29-7	
Acetone	Not detected	1,000		ug/kg	67.4	67-64-1	
Methyl iodide	Not detected	100		ug/kg	67.4	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	67.4	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	67.4	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	67.4	107-13-1	
2-Butanone (MEK)	Not detected	1,000		ug/kg	67.4	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	67.4	75-71-8	
Chloromethane	Not detected	300		ug/kg	67.4	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	67.4	75-01-4	
Bromomethane	Not detected	300		ug/kg	67.4	74-83-9	
Chloroethane	Not detected	300		ug/kg	67.4	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	67.4	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	67.4	75-35-4	
Methylene chloride	Not detected	100		ug/kg	67.4	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	67.4	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	67.4	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	67.4	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	67.4	109-99-9	
Chloroform	Not detected	70		ug/kg	67.4	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	67.4	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	67.4	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	67.4	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	67.4	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	67.4	56-23-5	
Benzene	Not detected	70		ug/kg	67.4	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	67.4	107-06-2	
Trichloroethene	Not detected	70		ug/kg	67.4	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	67.4	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	67.4	75-27-4	
Dibromomethane	Not detected	300		ug/kg	67.4	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	67.4	10061-01-5	
Toluene	Not detected	70		ug/kg	67.4	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	67.4	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	67.4	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	67.4	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	67.4	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	67.4	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	67.4	106-93-4	M

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S74399.01 (continued)

Sample Tag: SB-1 (4-4.5)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 21:21, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chlorobenzene	Not detected	70		ug/kg	67.4	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	67.4	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	67.4	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	67.4		
o-Xylene	Not detected	70		ug/kg	67.4	95-47-6	
Styrene	Not detected	70		ug/kg	67.4	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	67.4	98-82-8	
Bromoform	Not detected	100		ug/kg	67.4	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	67.4	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	67.4	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	67.4	103-65-1	
Bromobenzene	Not detected	100		ug/kg	67.4	108-86-1	
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	67.4	108-67-8	
tert-Butylbenzene	Not detected	70		ug/kg	67.4	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	67.4	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	67.4	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	67.4	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	67.4	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	67.4	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	67.4	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	67.4	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	67.4	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	67.4	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	67.4	96-12-8	
1,2,4-Trichlorobenzene	Not detected	440		ug/kg	67.4	120-82-1	
1,2,3-Trichlorobenzene	Not detected	440		ug/kg	67.4	87-61-6	
Naphthalene	Not detected	300		ug/kg	67.4	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	67.4	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S74399.02

Sample Tag: SB-1 (14-15)

Collected Date/Time: 05/08/2025 09:57

Matrix: Soil

COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	
PNA Extraction*	Completed	SW3546	05/14/25 16:00	PTW	
Sample wt. (g) / Methanol (ml)*	11.146/11	SW5035A	05/12/25 16:33	ACK	
Mercury Digestion	Completed	SW7471B	05/13/25 13:00	CTV	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	96	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 12:26, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	4,230	200		ug/kg	215	7440-38-2	
Barium	5,680	1,000		ug/kg	215	7440-39-3	
Cadmium	Not detected	200		ug/kg	215	7440-43-9	
Chromium	2,930	500		ug/kg	215	7440-47-3	
Copper	5,930	500		ug/kg	215	7440-50-8	
Lead	3,260	300		ug/kg	215	7439-92-1	
Selenium	Not detected	400		ug/kg	215	7782-49-2	
Silver	Not detected	200		ug/kg	215	7440-22-4	
Zinc	24,300	500		ug/kg	215	7440-66-6	

Method: SW7471B, Run Date: 05/13/25 15:55, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	50		ug/kg	59	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 18:41, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	



Analytical Laboratory Report

Lab Sample ID: S74399.02 (continued)

Sample Tag: SB-1 (14-15)

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 18:41, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 21:45, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	53.5	60-29-7	
Acetone	Not detected	1,000		ug/kg	53.5	67-64-1	
Methyl iodide	Not detected	100		ug/kg	53.5	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	53.5	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	53.5	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	53.5	107-13-1	
2-Butanone (MEK)	Not detected	800		ug/kg	53.5	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	53.5	75-71-8	
Chloromethane	Not detected	300		ug/kg	53.5	74-87-3	
Vinyl chloride	Not detected	50		ug/kg	53.5	75-01-4	
Bromomethane	Not detected	200		ug/kg	53.5	74-83-9	
Chloroethane	Not detected	300		ug/kg	53.5	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	53.5	75-69-4	
1,1-Dichloroethene	Not detected	50		ug/kg	53.5	75-35-4	
Methylene chloride	Not detected	100		ug/kg	53.5	75-09-2	
trans-1,2-Dichloroethene	Not detected	50		ug/kg	53.5	156-60-5	
1,1-Dichloroethane	Not detected	50		ug/kg	53.5	75-34-3	
cis-1,2-Dichloroethene	Not detected	50		ug/kg	53.5	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	53.5	109-99-9	
Chloroform	Not detected	50		ug/kg	53.5	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	53.5	74-97-5	
1,1,1-Trichloroethane	Not detected	50		ug/kg	53.5	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	53.5	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	53.5	591-78-6	
Carbon tetrachloride	Not detected	50		ug/kg	53.5	56-23-5	
Benzene	Not detected	50		ug/kg	53.5	71-43-2	
1,2-Dichloroethane	Not detected	50		ug/kg	53.5	107-06-2	
Trichloroethene	Not detected	50		ug/kg	53.5	79-01-6	
1,2-Dichloropropane	Not detected	50		ug/kg	53.5	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	53.5	75-27-4	
Dibromomethane	Not detected	300		ug/kg	53.5	74-95-3	
cis-1,3-Dichloropropene	Not detected	50		ug/kg	53.5	10061-01-5	
Toluene	Not detected	50		ug/kg	53.5	108-88-3	
trans-1,3-Dichloropropene	Not detected	50		ug/kg	53.5	10061-02-6	
1,1,2-Trichloroethane	Not detected	50		ug/kg	53.5	79-00-5	
Tetrachloroethene	Not detected	50		ug/kg	53.5	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	50		ug/kg	53.5	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	53.5	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	53.5	106-93-4	M

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S74399.02 (continued)

Sample Tag: SB-1 (14-15)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 21:45, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chlorobenzene	Not detected	50		ug/kg	53.5	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	53.5	630-20-6	
Ethylbenzene	Not detected	50		ug/kg	53.5	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	53.5		
o-Xylene	Not detected	50		ug/kg	53.5	95-47-6	
Styrene	Not detected	50		ug/kg	53.5	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	53.5	98-82-8	
Bromoform	Not detected	100		ug/kg	53.5	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	50		ug/kg	53.5	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	53.5	96-18-4	
n-Propylbenzene	Not detected	50		ug/kg	53.5	103-65-1	
Bromobenzene	Not detected	100		ug/kg	53.5	108-86-1	
1,3,5-Trimethylbenzene	Not detected	50		ug/kg	53.5	108-67-8	
tert-Butylbenzene	Not detected	50		ug/kg	53.5	98-06-6	
1,2,4-Trimethylbenzene	Not detected	50		ug/kg	53.5	95-63-6	
sec-Butylbenzene	Not detected	50		ug/kg	53.5	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	53.5	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	53.5	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	53.5	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	53.5	95-50-1	
1,2,3-Trimethylbenzene	Not detected	50		ug/kg	53.5	526-73-8	
n-Butylbenzene	Not detected	50		ug/kg	53.5	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	53.5	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	53.5	96-12-8	
1,2,4-Trichlorobenzene	Not detected	350		ug/kg	53.5	120-82-1	
1,2,3-Trichlorobenzene	Not detected	350		ug/kg	53.5	87-61-6	
Naphthalene	Not detected	300		ug/kg	53.5	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	53.5	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S74399.03

Sample Tag: SB-2 (2-2.5)

Collected Date/Time: 05/08/2025 10:25

Matrix: Soil

COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	
PNA Extraction*	Completed	SW3546	05/14/25 16:00	PTW	
Sample wt. (g) / Methanol (ml)*	10.856/10	SW5035A	05/12/25 16:33	ACK	
Mercury Digestion	Completed	SW7471B	05/13/25 13:00	CTV	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	86	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 12:28, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	6,720	200		ug/kg	243	7440-38-2	
Barium	36,800	1,000		ug/kg	243	7440-39-3	
Cadmium	Not detected	200		ug/kg	243	7440-43-9	
Chromium	10,800	500		ug/kg	243	7440-47-3	
Copper	11,600	500		ug/kg	243	7440-50-8	
Lead	8,960	300		ug/kg	243	7439-92-1	
Selenium	Not detected	400		ug/kg	243	7782-49-2	
Silver	Not detected	200		ug/kg	243	7440-22-4	
Zinc	40,200	500		ug/kg	243	7440-66-6	

Method: SW7471B, Run Date: 05/13/25 16:04, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	50		ug/kg	67	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 19:04, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	



Analytical Laboratory Report

Lab Sample ID: S74399.03 (continued)

Sample Tag: SB-2 (2-2.5)

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 19:04, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 22:09, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	61.7	60-29-7	
Acetone	Not detected	1,000		ug/kg	61.7	67-64-1	
Methyl iodide	Not detected	100		ug/kg	61.7	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	61.7	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	61.7	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	61.7	107-13-1	
2-Butanone (MEK)	Not detected	930		ug/kg	61.7	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	61.7	75-71-8	
Chloromethane	Not detected	300		ug/kg	61.7	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	61.7	75-01-4	
Bromomethane	Not detected	200		ug/kg	61.7	74-83-9	
Chloroethane	Not detected	300		ug/kg	61.7	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	61.7	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	61.7	75-35-4	
Methylene chloride	Not detected	100		ug/kg	61.7	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	61.7	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	61.7	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	61.7	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	61.7	109-99-9	
Chloroform	Not detected	60		ug/kg	61.7	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	61.7	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	61.7	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	61.7	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	61.7	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	61.7	56-23-5	
Benzene	Not detected	60		ug/kg	61.7	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	61.7	107-06-2	
Trichloroethene	Not detected	60		ug/kg	61.7	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	61.7	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	61.7	75-27-4	
Dibromomethane	Not detected	300		ug/kg	61.7	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	61.7	10061-01-5	
Toluene	Not detected	60		ug/kg	61.7	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	61.7	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	61.7	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	61.7	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	61.7	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	61.7	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	61.7	106-93-4	M

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S74399.03 (continued)

Sample Tag: SB-2 (2-2.5)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 22:09, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chlorobenzene	Not detected	60		ug/kg	61.7	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	61.7	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	61.7	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	61.7		
o-Xylene	Not detected	60		ug/kg	61.7	95-47-6	
Styrene	Not detected	60		ug/kg	61.7	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	61.7	98-82-8	
Bromoform	Not detected	100		ug/kg	61.7	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	61.7	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	61.7	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	61.7	103-65-1	
Bromobenzene	Not detected	100		ug/kg	61.7	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	61.7	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	61.7	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	61.7	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	61.7	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	61.7	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	61.7	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	61.7	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	61.7	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	61.7	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	61.7	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	61.7	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	61.7	96-12-8	
1,2,4-Trichlorobenzene	Not detected	410		ug/kg	61.7	120-82-1	
1,2,3-Trichlorobenzene	Not detected	410		ug/kg	61.7	87-61-6	
Naphthalene	Not detected	300		ug/kg	61.7	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	61.7	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S74399.04

Sample Tag: SB-2 (13-14)

Collected Date/Time: 05/08/2025 10:40

Matrix: Soil

COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	
PNA Extraction*	Completed	SW3546	05/14/25 16:00	PTW	
Sample wt. (g) / Methanol (ml)*	11.127/11	SW5035A	05/12/25 16:33	ACK	
Mercury Digestion	Completed	SW7471B	05/13/25 13:00	CTV	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	90	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 12:30, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	3,970	200		ug/kg	235	7440-38-2	
Barium	22,500	1,000		ug/kg	235	7440-39-3	
Cadmium	Not detected	200		ug/kg	235	7440-43-9	
Chromium	11,300	500		ug/kg	235	7440-47-3	
Copper	11,800	500		ug/kg	235	7440-50-8	
Lead	4,220	300		ug/kg	235	7439-92-1	
Selenium	560	400		ug/kg	235	7782-49-2	
Silver	Not detected	200		ug/kg	235	7440-22-4	
Zinc	27,600	500		ug/kg	235	7440-66-6	

Method: SW7471B, Run Date: 05/13/25 16:08, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	50		ug/kg	61	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 19:28, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	



Analytical Laboratory Report

Lab Sample ID: S74399.04 (continued)

Sample Tag: SB-2 (13-14)

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 19:28, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 22:33, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	60.5	60-29-7	
Acetone	Not detected	1,000		ug/kg	60.5	67-64-1	
Methyl iodide	Not detected	100		ug/kg	60.5	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	60.5	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	60.5	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	60.5	107-13-1	
2-Butanone (MEK)	Not detected	910		ug/kg	60.5	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	60.5	75-71-8	
Chloromethane	Not detected	300		ug/kg	60.5	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	60.5	75-01-4	
Bromomethane	Not detected	200		ug/kg	60.5	74-83-9	
Chloroethane	Not detected	300		ug/kg	60.5	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	60.5	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	60.5	75-35-4	
Methylene chloride	Not detected	100		ug/kg	60.5	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	60.5	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	60.5	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	60.5	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	60.5	109-99-9	
Chloroform	Not detected	60		ug/kg	60.5	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	60.5	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	60.5	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	60.5	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	60.5	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	60.5	56-23-5	
Benzene	Not detected	60		ug/kg	60.5	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	60.5	107-06-2	
Trichloroethene	Not detected	60		ug/kg	60.5	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	60.5	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	60.5	75-27-4	
Dibromomethane	Not detected	300		ug/kg	60.5	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	60.5	10061-01-5	
Toluene	Not detected	60		ug/kg	60.5	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	60.5	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	60.5	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	60.5	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	60.5	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	60.5	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	60.5	106-93-4	M

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S74399.04 (continued)

Sample Tag: SB-2 (13-14)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 22:33, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chlorobenzene	Not detected	60		ug/kg	60.5	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	60.5	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	60.5	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	60.5		
o-Xylene	Not detected	60		ug/kg	60.5	95-47-6	
Styrene	Not detected	60		ug/kg	60.5	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	60.5	98-82-8	
Bromoform	Not detected	100		ug/kg	60.5	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	60.5	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	60.5	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	60.5	103-65-1	
Bromobenzene	Not detected	100		ug/kg	60.5	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	60.5	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	60.5	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	60.5	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	60.5	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	60.5	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	60.5	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	60.5	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	60.5	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	60.5	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	60.5	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	60.5	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	60.5	96-12-8	
1,2,4-Trichlorobenzene	Not detected	400		ug/kg	60.5	120-82-1	
1,2,3-Trichlorobenzene	Not detected	400		ug/kg	60.5	87-61-6	
Naphthalene	Not detected	300		ug/kg	60.5	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	60.5	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S74399.05

Sample Tag: SB-3 (3.5-4)

Collected Date/Time: 05/08/2025 11:00

Matrix: Soil

COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	77	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 12:32, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	8,080	300		ug/kg	270	7439-92-1	



Analytical Laboratory Report

Lab Sample ID: S74399.06

Sample Tag: SB-4 (3.5-4)

Collected Date/Time: 05/08/2025 12:00

Matrix: Soil

COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	84	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 12:34, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	15,700	300		ug/kg	255	7439-92-1	



Analytical Laboratory Report

Lab Sample ID: S74399.07

Sample Tag: SB-5 (4-5)

Collected Date/Time: 05/08/2025 12:40

Matrix: Soil

COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	
PNA Extraction*	Completed	SW3546	05/14/25 16:00	PTW	
Sample wt. (g) / Methanol (ml)*	10.041/10	SW5035A	05/13/25 11:48	ACK	
Mercury Digestion	Completed	SW7471B	05/13/25 13:00	CTV	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	90	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 12:36, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	9,040	200		ug/kg	236	7440-38-2	
Barium	29,300	1,000		ug/kg	236	7440-39-3	
Cadmium	Not detected	200		ug/kg	236	7440-43-9	
Chromium	7,940	500		ug/kg	236	7440-47-3	
Copper	11,200	500		ug/kg	236	7440-50-8	
Lead	7,930	300		ug/kg	236	7439-92-1	
Selenium	Not detected	400		ug/kg	236	7782-49-2	
Silver	Not detected	200		ug/kg	236	7440-22-4	
Zinc	40,600	500		ug/kg	236	7440-66-6	

Method: SW7471B, Run Date: 05/13/25 16:11, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	50		ug/kg	62	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 19:51, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	



Analytical Laboratory Report

Lab Sample ID: S74399.07 (continued)

Sample Tag: SB-5 (4-5)

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 19:51, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/13/25 15:12, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	60.9	60-29-7	x
Acetone	Not detected	1,000		ug/kg	60.9	67-64-1	x
Methyl iodide	Not detected	100		ug/kg	60.9	74-88-4	x
Carbon disulfide	Not detected	300		ug/kg	60.9	75-15-0	x
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	60.9	1634-04-4	x
Acrylonitrile	Not detected	100		ug/kg	60.9	107-13-1	x
2-Butanone (MEK)	Not detected	910		ug/kg	60.9	78-93-3	x
Dichlorodifluoromethane	Not detected	300		ug/kg	60.9	75-71-8	x
Chloromethane	Not detected	300		ug/kg	60.9	74-87-3	x
Vinyl chloride	Not detected	60		ug/kg	60.9	75-01-4	x
Bromomethane	Not detected	200		ug/kg	60.9	74-83-9	x
Chloroethane	Not detected	300		ug/kg	60.9	75-00-3	x
Trichlorofluoromethane	Not detected	100		ug/kg	60.9	75-69-4	x
1,1-Dichloroethene	Not detected	60		ug/kg	60.9	75-35-4	x
Methylene chloride	Not detected	100		ug/kg	60.9	75-09-2	x
trans-1,2-Dichloroethene	Not detected	60		ug/kg	60.9	156-60-5	x
1,1-Dichloroethane	Not detected	60		ug/kg	60.9	75-34-3	x
cis-1,2-Dichloroethene	Not detected	60		ug/kg	60.9	156-59-2	x
Tetrahydrofuran	Not detected	1,000		ug/kg	60.9	109-99-9	x
Chloroform	Not detected	60		ug/kg	60.9	67-66-3	x
Bromochloromethane	Not detected	100		ug/kg	60.9	74-97-5	x
1,1,1-Trichloroethane	Not detected	60		ug/kg	60.9	71-55-6	x
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	60.9	108-10-1	x
2-Hexanone	Not detected	3,000		ug/kg	60.9	591-78-6	x
Carbon tetrachloride	Not detected	60		ug/kg	60.9	56-23-5	x
Benzene	Not detected	60		ug/kg	60.9	71-43-2	x
1,2-Dichloroethane	Not detected	60		ug/kg	60.9	107-06-2	x
Trichloroethene	Not detected	60		ug/kg	60.9	79-01-6	x
1,2-Dichloropropane	Not detected	60		ug/kg	60.9	78-87-5	x
Bromodichloromethane	Not detected	100		ug/kg	60.9	75-27-4	x
Dibromomethane	Not detected	300		ug/kg	60.9	74-95-3	x
cis-1,3-Dichloropropene	Not detected	60		ug/kg	60.9	10061-01-5	x
Toluene	Not detected	60		ug/kg	60.9	108-88-3	x
trans-1,3-Dichloropropene	Not detected	60		ug/kg	60.9	10061-02-6	x
1,1,2-Trichloroethane	Not detected	60		ug/kg	60.9	79-00-5	x
Tetrachloroethene	Not detected	60		ug/kg	60.9	127-18-4	x
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	60.9	110-57-6	x
Dibromochloromethane	Not detected	100		ug/kg	60.9	124-48-1	x

x-Preserved from bulk sample



Analytical Laboratory Report

Lab Sample ID: S74399.07 (continued)

Sample Tag: SB-5 (4-5)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/13/25 15:12, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,2-Dibromoethane	Not detected	20		ug/kg	60.9	106-93-4	Mx
Chlorobenzene	Not detected	60		ug/kg	60.9	108-90-7	x
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	60.9	630-20-6	x
Ethylbenzene	Not detected	60		ug/kg	60.9	100-41-4	x
p,m-Xylene	Not detected	100		ug/kg	60.9		x
o-Xylene	Not detected	60		ug/kg	60.9	95-47-6	x
Styrene	Not detected	60		ug/kg	60.9	100-42-5	x
Isopropylbenzene	Not detected	300		ug/kg	60.9	98-82-8	x
Bromoforn	Not detected	100		ug/kg	60.9	75-25-2	x
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	60.9	79-34-5	x
1,2,3-Trichloropropane	Not detected	100		ug/kg	60.9	96-18-4	x
n-Propylbenzene	Not detected	60		ug/kg	60.9	103-65-1	x
Bromobenzene	Not detected	100		ug/kg	60.9	108-86-1	x
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	60.9	108-67-8	x
tert-Butylbenzene	Not detected	60		ug/kg	60.9	98-06-6	x
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	60.9	95-63-6	x
sec-Butylbenzene	Not detected	60		ug/kg	60.9	135-98-8	x
p-Isopropyltoluene	Not detected	100		ug/kg	60.9	99-87-6	x
1,3-Dichlorobenzene	Not detected	100		ug/kg	60.9	541-73-1	x
1,4-Dichlorobenzene	Not detected	100		ug/kg	60.9	106-46-7	x
1,2-Dichlorobenzene	Not detected	100		ug/kg	60.9	95-50-1	x
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	60.9	526-73-8	x
n-Butylbenzene	Not detected	60		ug/kg	60.9	104-51-8	x
Hexachloroethane	Not detected	400		ug/kg	60.9	67-72-1	x
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	60.9	96-12-8	x
1,2,4-Trichlorobenzene	Not detected	400		ug/kg	60.9	120-82-1	x
1,2,3-Trichlorobenzene	Not detected	400		ug/kg	60.9	87-61-6	x
Naphthalene	Not detected	300		ug/kg	60.9	91-20-3	x
2-Methylnaphthalene	Not detected	100		ug/kg	60.9	91-57-6	x

M-Result reported to MDL not RDL x-Preserved from bulk sample



Analytical Laboratory Report

Lab Sample ID: S74399.08

Sample Tag: MW-7

Collected Date/Time: 05/09/2025 13:35

Matrix: Groundwater

COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Amber	None	Yes	3.2	IR
1	125mL Plastic	HNO3	Yes	3.2	IR
1	15mL Centrifuge Tube	None	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.03/6.55/9	ASTMD7979-19M	05/14/25 12:30	CED	
Mercury Digestion	Completed	E245.1	05/13/25 11:45	CTV	
Metal Digestion	Completed	SW3015A	05/13/25 09:05	JRH	
PNA Extraction	Completed	SW3510C	05/15/25 10:30	JWR	

Metals

Method: E200.8, Run Date: 05/13/25 12:04, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	Not detected	2		ug/L	5	7440-38-2	
Cadmium	Not detected	0.5		ug/L	5	7440-43-9	
Lead	Not detected	3		ug/L	5	7439-92-1	
Selenium	Not detected	5		ug/L	5	7782-49-2	

Method: E245.1, Run Date: 05/13/25 14:51, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.2		ug/L	1	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatic Hydrocarbon, Method: SW8270D, Run Date: 05/15/25 19:14, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	5		ug/L	2	83-32-9	
Acenaphthylene	Not detected	5		ug/L	2	208-96-8	
Anthracene	Not detected	5		ug/L	2	120-12-7	
Benzo(a)anthracene	Not detected	1		ug/L	2	56-55-3	
Benzo(a)pyrene	Not detected	1		ug/L	2	50-32-8	
Benzo(b)fluoranthene	Not detected	1		ug/L	2	205-99-2	
Benzo(k)fluoranthene	Not detected	1		ug/L	2	207-08-9	
Benzo(ghi)perylene	Not detected	1		ug/L	2	191-24-2	
Chrysene	Not detected	1		ug/L	2	218-01-9	
Dibenzo(ah)anthracene	Not detected	2		ug/L	2	53-70-3	
Fluoranthene	Not detected	1		ug/L	2	206-44-0	
Fluorene	Not detected	5		ug/L	2	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	2		ug/L	2	193-39-5	
Naphthalene	Not detected	5		ug/L	2	91-20-3	
Phenanthrene	Not detected	2		ug/L	2	85-01-8	
Pyrene	Not detected	5		ug/L	2	129-00-0	
2-Methylnaphthalene	Not detected	5		ug/L	2	91-57-6	
1-Methylnaphthalene	Not detected	5		ug/L	2	90-12-0	



Analytical Laboratory Report

Lab Sample ID: S74399.08 (continued)

Sample Tag: MW-7

Organics

40 PFAs, Method: ASTM D7979-19M, Run Date: 05/15/25 01:38, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	0.01		ug/L	2.01	375-22-4	
PFPeA*	Not detected	0.0040		ug/L	2.01	2706-90-3	
4:2 FTSA*	Not detected	0.0020		ug/L	2.01	757124-72-4	
PFHxA*	Not detected	0.0020		ug/L	2.01	307-24-4	
PFBS*	0.0075	0.0020		ug/L	2.01	375-73-5	
PFHpA*	Not detected	0.0020		ug/L	2.01	375-85-9	
PFPeS*	Not detected	0.0020		ug/L	2.01	2706-91-4	
6:2 FTSA*	Not detected	0.0020		ug/L	2.01	27619-97-2	
PFOA*	Not detected	0.0020		ug/L	2.01	335-67-1	
PFHxS*	Not detected	0.0020		ug/L	2.01	355-46-4	
PFHxS-LN*	Not detected	0.0020		ug/L	2.01	355-46-4-LN	
PFHxS-BR*	Not detected	0.0020		ug/L	2.01	355-46-4-BR	
PFNA*	Not detected	0.0020		ug/L	2.01	375-95-1	
8:2 FTSA*	Not detected	0.0020		ug/L	2.01	39108-34-4	
PFHpS*	Not detected	0.0020		ug/L	2.01	375-92-8	
PFDA*	Not detected	0.0020		ug/L	2.01	335-76-2	
N-MeFOSAA*	Not detected	0.0020		ug/L	2.01	2355-31-9	
EtFOSAA*	Not detected	0.0040		ug/L	2.01	2991-50-6	
PFOS*	Not detected	0.0020		ug/L	2.01	1763-23-1	
PFOS-LN*	Not detected	0.0020		ug/L	2.01	1763-23-1-LN	
PFOS-BR*	Not detected	0.0020		ug/L	2.01	1763-23-1-BR	
PFUnDA*	Not detected	0.0020		ug/L	2.01	2058-94-8	
PFNS*	Not detected	0.0020		ug/L	2.01	68259-12-1	
PFDoDA*	Not detected	0.0020		ug/L	2.01	307-55-1	
PFDS*	Not detected	0.0020		ug/L	2.01	335-77-3	
PFTTrDA*	Not detected	0.0020		ug/L	2.01	72629-94-8	
FOSA*	Not detected	0.0020		ug/L	2.01	754-91-6	
PFTeDA*	Not detected	0.0040		ug/L	2.01	376-06-7	
11Cl-PF3OUdS*	Not detected	0.0020		ug/L	2.01	763051-92-9	
9Cl-PF3ONS*	Not detected	0.0020		ug/L	2.01	756426-58-1	
ADONA*	Not detected	0.0020		ug/L	2.01	919005-14-4	
HFPO-DA*	Not detected	0.01		ug/L	2.01	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	0.01		ug/L	2.01	812-70-4	
FPePA (5:3 FTCA)*	Not detected	0.01		ug/L	2.01	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	0.01		ug/L	2.01	356-02-5	
NFDHA*	Not detected	0.0020		ug/L	2.01	151772-58-6	
PFEESA*	Not detected	0.0020		ug/L	2.01	113507-82-7	
PFMBA*	Not detected	0.0020		ug/L	2.01	863090-89-5	
PFMPA*	Not detected	0.0020		ug/L	2.01	377-73-1	
NMeFOSAM*	Not detected	0.0020		ug/L	2.01	31506-32-8	
NMeFOSE*	Not detected	0.0040		ug/L	2.01	24448-09-7	
NEtFOSAM*	Not detected	0.0020		ug/L	2.01	4151-50-2	
NEtFOSE*	Not detected	0.0040		ug/L	2.01	1691-99-2	
PFDoS*	Not detected	0.0040		ug/L	2.01	79780-39-5	



Analytical Laboratory Report

Lab Sample ID: S74399.09

Sample Tag: MW-8

Collected Date/Time: 05/09/2025 12:40

Matrix: Groundwater

COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Amber	None	Yes	3.2	IR
1	15mL Centrifuge Tube	None	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	10.81/6.41/9	ASTMD7979-19M	05/14/25 12:30	CED	
Extraction, PCB*	Completed	E608.3	05/15/25 10:30	JWR	

Organics - PCBs/Pesticides

PCB, Method: E608.3, Run Date: 05/15/25 16:26, Analyst: JANB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PCB-1016	Not detected	0.1		ug/L	1	12674-11-2	
PCB-1221	Not detected	0.1		ug/L	1	11104-28-2	
PCB-1232	Not detected	0.1		ug/L	1	11141-16-5	
PCB-1242	Not detected	0.1		ug/L	1	53469-21-9	
PCB-1248	Not detected	0.1		ug/L	1	12672-29-6	
PCB-1254	Not detected	0.1		ug/L	1	11097-69-1	
PCB-1260	Not detected	0.1		ug/L	1	11096-82-5	
PCB, Total*	Not detected	0.1		ug/L	1	1336-36-3	

Organics

40 PFAs, Method: ASTMD7979-19M, Run Date: 05/15/25 01:58, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	0.01		ug/L	2.05	375-22-4	
PFPeA*	Not detected	0.0041		ug/L	2.05	2706-90-3	
4:2 FTSA*	Not detected	0.0021		ug/L	2.05	757124-72-4	
PFHxA*	Not detected	0.0021		ug/L	2.05	307-24-4	
PFBS*	Not detected	0.0021		ug/L	2.05	375-73-5	
PFHpA*	Not detected	0.0021		ug/L	2.05	375-85-9	
PFPeS*	Not detected	0.0021		ug/L	2.05	2706-91-4	
6:2 FTSA*	Not detected	0.0021		ug/L	2.05	27619-97-2	
PFOA*	Not detected	0.0021		ug/L	2.05	335-67-1	
PFHxS*	Not detected	0.0021		ug/L	2.05	355-46-4	
PFHxS-LN*	Not detected	0.0021		ug/L	2.05	355-46-4-LN	
PFHxS-BR*	Not detected	0.0021		ug/L	2.05	355-46-4-BR	
PFNA*	Not detected	0.0021		ug/L	2.05	375-95-1	
8:2 FTSA*	Not detected	0.0021		ug/L	2.05	39108-34-4	
PFHpS*	Not detected	0.0021		ug/L	2.05	375-92-8	
PFDA*	Not detected	0.0021		ug/L	2.05	335-76-2	
N-MeFOSAA*	Not detected	0.0021		ug/L	2.05	2355-31-9	
EtFOSAA*	Not detected	0.0041		ug/L	2.05	2991-50-6	
PFOS*	Not detected	0.0021		ug/L	2.05	1763-23-1	
PFOS-LN*	Not detected	0.0021		ug/L	2.05	1763-23-1-LN	
PFOS-BR*	Not detected	0.0021		ug/L	2.05	1763-23-1-BR	
PFUnDA*	Not detected	0.0021		ug/L	2.05	2058-94-8	
PFNS*	Not detected	0.0021		ug/L	2.05	68259-12-1	



Analytical Laboratory Report

Lab Sample ID: S74399.09 (continued)

Sample Tag: MW-8

40 PFAs, Method: ASTM D7979-19M, Run Date: 05/15/25 01:58, Analyst: CED (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFDoDA*	Not detected	0.0021		ug/L	2.05	307-55-1	
PFDs*	Not detected	0.0021		ug/L	2.05	335-77-3	
PFTTrDA*	Not detected	0.0021		ug/L	2.05	72629-94-8	
FOSA*	Not detected	0.0021		ug/L	2.05	754-91-6	
PFTeDA*	Not detected	0.0041		ug/L	2.05	376-06-7	
11Cl-PF3OUdS*	Not detected	0.0021		ug/L	2.05	763051-92-9	
9Cl-PF3ONS*	Not detected	0.0021		ug/L	2.05	756426-58-1	
ADONA*	Not detected	0.0021		ug/L	2.05	919005-14-4	
HFPO-DA*	Not detected	0.01		ug/L	2.05	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	0.01		ug/L	2.05	812-70-4	
FPePA (5:3 FTCA)*	Not detected	0.01		ug/L	2.05	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	0.01		ug/L	2.05	356-02-5	
NFDHA*	Not detected	0.0021		ug/L	2.05	151772-58-6	
PFEESA*	Not detected	0.0021		ug/L	2.05	113507-82-7	
PFMBA*	Not detected	0.0021		ug/L	2.05	863090-89-5	
PFMPA*	Not detected	0.0021		ug/L	2.05	377-73-1	
NMeFOSAM*	Not detected	0.0021		ug/L	2.05	31506-32-8	
NMeFOSE*	Not detected	0.0041		ug/L	2.05	24448-09-7	
NEtFOSAM*	Not detected	0.0021		ug/L	2.05	4151-50-2	
NEtFOSE*	Not detected	0.0041		ug/L	2.05	1691-99-2	
PFDoS*	Not detected	0.0041		ug/L	2.05	79780-39-5	



Analytical Laboratory Report

Lab Sample ID: S74399.10

Sample Tag: MW-9

Collected Date/Time: 05/09/2025 11:20

Matrix: Groundwater

COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Amber	None	Yes	3.2	IR
1	125mL Plastic	HNO3	Yes	3.2	IR
1	15mL Centrifuge Tube	None	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.43/6.50/10	ASTMD7979-19M	05/14/25 12:30	CED	
Mercury Digestion	Completed	E245.1	05/13/25 11:45	CTV	
Metal Digestion	Completed	SW3015A	05/13/25 09:05	JRH	
PNA Extraction	Completed	SW3510C	05/15/25 10:30	JWR	

Metals

Method: E200.8, Run Date: 05/13/25 12:06, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	Not detected	2		ug/L	5	7440-38-2	
Cadmium	Not detected	0.5		ug/L	5	7440-43-9	
Lead	Not detected	3		ug/L	5	7439-92-1	
Selenium	Not detected	5		ug/L	5	7782-49-2	

Method: E245.1, Run Date: 05/13/25 15:01, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.2		ug/L	1	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatic Hydrocarbon, Method: SW8270D, Run Date: 05/15/25 19:37, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	5		ug/L	2	83-32-9	
Acenaphthylene	Not detected	5		ug/L	2	208-96-8	
Anthracene	Not detected	5		ug/L	2	120-12-7	
Benzo(a)anthracene	Not detected	1		ug/L	2	56-55-3	
Benzo(a)pyrene	Not detected	1		ug/L	2	50-32-8	
Benzo(b)fluoranthene	Not detected	1		ug/L	2	205-99-2	
Benzo(k)fluoranthene	Not detected	1		ug/L	2	207-08-9	
Benzo(ghi)perylene	Not detected	1		ug/L	2	191-24-2	
Chrysene	Not detected	1		ug/L	2	218-01-9	
Dibenzo(ah)anthracene	Not detected	2		ug/L	2	53-70-3	
Fluoranthene	Not detected	1		ug/L	2	206-44-0	
Fluorene	Not detected	5		ug/L	2	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	2		ug/L	2	193-39-5	
Naphthalene	Not detected	5		ug/L	2	91-20-3	
Phenanthrene	Not detected	2		ug/L	2	85-01-8	
Pyrene	Not detected	5		ug/L	2	129-00-0	
2-Methylnaphthalene	Not detected	5		ug/L	2	91-57-6	
1-Methylnaphthalene	Not detected	5		ug/L	2	90-12-0	



Analytical Laboratory Report

Lab Sample ID: S74399.10 (continued)

Sample Tag: MW-9

Organics

40 PFAs, Method: ASTMD7979-19M, Run Date: 05/15/25 02:18, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	0.013	0.01		ug/L	2.03	375-22-4	
PFPeA*	0.027	0.0041		ug/L	2.03	2706-90-3	
4:2 FTSA*	Not detected	0.0020		ug/L	2.03	757124-72-4	
PFHxA*	0.031	0.0020		ug/L	2.03	307-24-4	
PFBS*	0.46	0.0020		ug/L	2.03	375-73-5	
PFHpA*	0.0042	0.0020		ug/L	2.03	375-85-9	
PFPeS*	Not detected	0.0020		ug/L	2.03	2706-91-4	
6:2 FTSA*	Not detected	0.0020		ug/L	2.03	27619-97-2	
PFOA*	0.0062	0.0020		ug/L	2.03	335-67-1	
PFHxS*	Not detected	0.0020		ug/L	2.03	355-46-4	
PFHxS-LN*	Not detected	0.0020		ug/L	2.03	355-46-4-LN	
PFHxS-BR*	Not detected	0.0020		ug/L	2.03	355-46-4-BR	
PFNA*	Not detected	0.0020		ug/L	2.03	375-95-1	
8:2 FTSA*	Not detected	0.0020		ug/L	2.03	39108-34-4	
PFHpS*	Not detected	0.0020		ug/L	2.03	375-92-8	
PFDA*	Not detected	0.0020		ug/L	2.03	335-76-2	
N-MeFOSAA*	Not detected	0.0020		ug/L	2.03	2355-31-9	
EtFOSAA*	Not detected	0.0041		ug/L	2.03	2991-50-6	
PFOS*	0.0051	0.0020		ug/L	2.03	1763-23-1	
PFOS-LN*	0.0035	0.0020		ug/L	2.03	1763-23-1-LN	
PFOS-BR*	Not detected	0.0020		ug/L	2.03	1763-23-1-BR	
PFUnDA*	Not detected	0.0020		ug/L	2.03	2058-94-8	
PFNS*	Not detected	0.0020		ug/L	2.03	68259-12-1	
PFDoDA*	Not detected	0.0020		ug/L	2.03	307-55-1	
PFDS*	Not detected	0.0020		ug/L	2.03	335-77-3	
PFTTrDA*	Not detected	0.0020		ug/L	2.03	72629-94-8	
FOSA*	Not detected	0.0020		ug/L	2.03	754-91-6	
PFTeDA*	Not detected	0.0041		ug/L	2.03	376-06-7	
11Cl-PF3OUdS*	Not detected	0.0020		ug/L	2.03	763051-92-9	
9Cl-PF3ONS*	Not detected	0.0020		ug/L	2.03	756426-58-1	
ADONA*	Not detected	0.0020		ug/L	2.03	919005-14-4	
HFPO-DA*	Not detected	0.01		ug/L	2.03	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	0.01		ug/L	2.03	812-70-4	
FPePA (5:3 FTCA)*	Not detected	0.01		ug/L	2.03	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	0.01		ug/L	2.03	356-02-5	
NFDHA*	Not detected	0.0020		ug/L	2.03	151772-58-6	
PFEESA*	Not detected	0.0020		ug/L	2.03	113507-82-7	
PFMBA*	Not detected	0.0020		ug/L	2.03	863090-89-5	
PFMPA*	Not detected	0.0020		ug/L	2.03	377-73-1	
NMeFOSAM*	Not detected	0.0020		ug/L	2.03	31506-32-8	
NMeFOSE*	Not detected	0.0041		ug/L	2.03	24448-09-7	
NEtFOSAM*	Not detected	0.0020		ug/L	2.03	4151-50-2	
NEtFOSE*	Not detected	0.0041		ug/L	2.03	1691-99-2	
PFDoS*	Not detected	0.0041		ug/L	2.03	79780-39-5	



Analytical Laboratory Report

Lab Sample ID: S74399.11

Sample Tag: MW-10

Collected Date/Time: 05/09/2025 10:55

Matrix: Groundwater

COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Amber	None	Yes	3.2	IR
1	125mL Plastic	HNO3	Yes	3.2	IR
1	15mL Centrifuge Tube	None	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.13/6.42/10	ASTMD7979-19M	05/14/25 12:30	CED	
Mercury Digestion	Completed	E245.1	05/13/25 11:45	CTV	
Metal Digestion	Completed	SW3015A	05/13/25 09:05	JRH	

Metals

Method: E200.8, Run Date: 05/13/25 12:08, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	Not detected	2		ug/L	5	7440-38-2	
Cadmium	Not detected	0.5		ug/L	5	7440-43-9	
Lead	Not detected	3		ug/L	5	7439-92-1	
Selenium	Not detected	5		ug/L	5	7782-49-2	

Method: E245.1, Run Date: 05/13/25 15:11, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.2		ug/L	1	7439-97-6	

Organics

40 PFAs, Method: ASTMD7979-19M, Run Date: 05/15/25 02:38, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	0.069	0.011		ug/L	2.12	375-22-4	
PFPeA*	0.086	0.0042		ug/L	2.12	2706-90-3	
4:2 FTSA*	Not detected	0.0021		ug/L	2.12	757124-72-4	
PFHxA*	0.027	0.0021		ug/L	2.12	307-24-4	
PFBS*	0.55	0.0021		ug/L	2.12	375-73-5	
PFHpA*	Not detected	0.0021		ug/L	2.12	375-85-9	
PFPeS*	Not detected	0.0021		ug/L	2.12	2706-91-4	
6:2 FTSA*	Not detected	0.0021		ug/L	2.12	27619-97-2	
PFOA*	Not detected	0.0021		ug/L	2.12	335-67-1	
PFHxS*	0.0025	0.0021		ug/L	2.12	355-46-4	
PFHxS-LN*	Not detected	0.0021		ug/L	2.12	355-46-4-LN	
PFHxS-BR*	Not detected	0.0021		ug/L	2.12	355-46-4-BR	
PFNA*	Not detected	0.0021		ug/L	2.12	375-95-1	
8:2 FTSA*	Not detected	0.0021		ug/L	2.12	39108-34-4	
PFHpS*	Not detected	0.0021		ug/L	2.12	375-92-8	
PFDA*	Not detected	0.0021		ug/L	2.12	335-76-2	
N-MeFOSAA*	Not detected	0.0021		ug/L	2.12	2355-31-9	
EtFOSAA*	Not detected	0.0042		ug/L	2.12	2991-50-6	
PFOS*	Not detected	0.0021		ug/L	2.12	1763-23-1	
PFOS-LN*	Not detected	0.0021		ug/L	2.12	1763-23-1-LN	
PFOS-BR*	Not detected	0.0021		ug/L	2.12	1763-23-1-BR	



Analytical Laboratory Report

Lab Sample ID: S74399.11 (continued)

Sample Tag: MW-10

40 PFAs, Method: ASTM D7979-19M, Run Date: 05/15/25 02:38, Analyst: CED (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFUnDA*	Not detected	0.0021		ug/L	2.12	2058-94-8	
PFNS*	Not detected	0.0021		ug/L	2.12	68259-12-1	
PFDODA*	Not detected	0.0021		ug/L	2.12	307-55-1	
PFDS*	Not detected	0.0021		ug/L	2.12	335-77-3	
PFTTrDA*	Not detected	0.0021		ug/L	2.12	72629-94-8	
FOSA*	Not detected	0.0021		ug/L	2.12	754-91-6	
PFTeDA*	Not detected	0.0042		ug/L	2.12	376-06-7	
11CI-PF3OUdS*	Not detected	0.0021		ug/L	2.12	763051-92-9	
9CI-PF3ONS*	Not detected	0.0021		ug/L	2.12	756426-58-1	
ADONA*	Not detected	0.0021		ug/L	2.12	919005-14-4	
HFPO-DA*	Not detected	0.011		ug/L	2.12	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	0.011		ug/L	2.12	812-70-4	
FPePA (5:3 FTCA)*	Not detected	0.011		ug/L	2.12	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	0.011		ug/L	2.12	356-02-5	
NFDHA*	Not detected	0.0021		ug/L	2.12	151772-58-6	
PFEESA*	Not detected	0.0021		ug/L	2.12	113507-82-7	
PFMBA*	Not detected	0.0021		ug/L	2.12	863090-89-5	
PFMPA*	Not detected	0.0021		ug/L	2.12	377-73-1	
NMeFOSAM*	Not detected	0.0021		ug/L	2.12	31506-32-8	
NMeFOSE*	Not detected	0.0042		ug/L	2.12	24448-09-7	
NEtFOSAM*	Not detected	0.0021		ug/L	2.12	4151-50-2	
NEtFOSE*	Not detected	0.0042		ug/L	2.12	1691-99-2	
PFDoS*	Not detected	0.0042		ug/L	2.12	79780-39-5	



Analytical Laboratory Report

Lab Sample ID: S74399.12

Sample Tag: SB-11 (2.5-3')

Collected Date/Time: 05/09/2025 09:45

Matrix: Soil

COC Reference: 178350

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	
PNA Extraction*	Completed	SW3546	05/14/25 16:00	PTW	
Sample wt. (g) / Methanol (ml)*	11.183/11	SW5035A	05/12/25 16:33	ACK	
Mercury Digestion	Completed	SW7471B	05/13/25 13:00	CTV	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	94	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 12:37, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	1,160	200		ug/kg	221	7440-38-2	
Barium	20,100	1,000		ug/kg	221	7440-39-3	
Cadmium	Not detected	200		ug/kg	221	7440-43-9	
Chromium	3,150	500		ug/kg	221	7440-47-3	
Copper	1,290	500		ug/kg	221	7440-50-8	
Lead	2,400	300		ug/kg	221	7439-92-1	
Selenium	Not detected	400		ug/kg	221	7782-49-2	
Silver	Not detected	200		ug/kg	221	7440-22-4	
Zinc	6,420	500		ug/kg	221	7440-66-6	

Method: SW7471B, Run Date: 05/13/25 16:14, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	50		ug/kg	60	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 20:14, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	



Analytical Laboratory Report

Lab Sample ID: S74399.12 (continued)

Sample Tag: SB-11 (2.5-3')

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 20:14, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 22:57, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	55.5	60-29-7	
Acetone	Not detected	1,000		ug/kg	55.5	67-64-1	
Methyl iodide	Not detected	100		ug/kg	55.5	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	55.5	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	55.5	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	55.5	107-13-1	
2-Butanone (MEK)	Not detected	830		ug/kg	55.5	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	55.5	75-71-8	
Chloromethane	Not detected	300		ug/kg	55.5	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	55.5	75-01-4	
Bromomethane	Not detected	200		ug/kg	55.5	74-83-9	
Chloroethane	Not detected	300		ug/kg	55.5	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	55.5	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	55.5	75-35-4	
Methylene chloride	Not detected	100		ug/kg	55.5	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	55.5	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	55.5	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	55.5	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	55.5	109-99-9	
Chloroform	Not detected	60		ug/kg	55.5	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	55.5	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	55.5	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	55.5	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	55.5	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	55.5	56-23-5	
Benzene	Not detected	60		ug/kg	55.5	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	55.5	107-06-2	
Trichloroethene	Not detected	60		ug/kg	55.5	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	55.5	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	55.5	75-27-4	
Dibromomethane	Not detected	300		ug/kg	55.5	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	55.5	10061-01-5	
Toluene	Not detected	60		ug/kg	55.5	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	55.5	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	55.5	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	55.5	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	55.5	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	55.5	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	55.5	106-93-4	M

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S74399.12 (continued)

Sample Tag: SB-11 (2.5-3')

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 22:57, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chlorobenzene	Not detected	60		ug/kg	55.5	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	55.5	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	55.5	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	55.5		
o-Xylene	Not detected	60		ug/kg	55.5	95-47-6	
Styrene	Not detected	60		ug/kg	55.5	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	55.5	98-82-8	
Bromoform	Not detected	100		ug/kg	55.5	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	55.5	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	55.5	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	55.5	103-65-1	
Bromobenzene	Not detected	100		ug/kg	55.5	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	55.5	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	55.5	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	55.5	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	55.5	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	55.5	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	55.5	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	55.5	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	55.5	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	55.5	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	55.5	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	55.5	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	55.5	96-12-8	
1,2,4-Trichlorobenzene	Not detected	370		ug/kg	55.5	120-82-1	
1,2,3-Trichlorobenzene	Not detected	370		ug/kg	55.5	87-61-6	
Naphthalene	Not detected	300		ug/kg	55.5	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	55.5	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S74399.13

Sample Tag: SB-12 (3-3.5)

Collected Date/Time: 05/09/2025 10:05

Matrix: Soil

COC Reference: 178254

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	
PNA Extraction*	Completed	SW3546	05/14/25 16:00	PTW	
Sample wt. (g) / Methanol (ml)*	10.956/10	SW5035A	05/12/25 16:33	ACK	
Mercury Digestion	Completed	SW7471B	05/13/25 13:00	CTV	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	79	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 12:39, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	1,110	200		ug/kg	266	7440-38-2	
Barium	17,600	1,000		ug/kg	266	7440-39-3	
Cadmium	Not detected	200		ug/kg	266	7440-43-9	
Chromium	5,640	500		ug/kg	266	7440-47-3	
Copper	2,090	500		ug/kg	266	7440-50-8	
Lead	4,830	300		ug/kg	266	7439-92-1	
Selenium	Not detected	400		ug/kg	266	7782-49-2	
Silver	Not detected	200		ug/kg	266	7440-22-4	
Zinc	10,300	500		ug/kg	266	7440-66-6	

Method: SW7471B, Run Date: 05/13/25 16:18, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	50		ug/kg	69	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 20:37, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	



Analytical Laboratory Report

Lab Sample ID: S74399.13 (continued)

Sample Tag: SB-12 (3-3.5)

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 20:37, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 17:07, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	71.1	60-29-7	
Acetone	Not detected	1,000		ug/kg	71.1	67-64-1	
Methyl iodide	Not detected	100		ug/kg	71.1	74-88-4	
Carbon disulfide	Not detected	400		ug/kg	71.1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	71.1	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	71.1	107-13-1	
2-Butanone (MEK)	Not detected	1,100		ug/kg	71.1	78-93-3	
Dichlorodifluoromethane	Not detected	400		ug/kg	71.1	75-71-8	
Chloromethane	Not detected	400		ug/kg	71.1	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	71.1	75-01-4	
Bromomethane	Not detected	300		ug/kg	71.1	74-83-9	
Chloroethane	Not detected	400		ug/kg	71.1	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	71.1	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	71.1	75-35-4	
Methylene chloride	Not detected	100		ug/kg	71.1	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	71.1	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	71.1	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	71.1	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	71.1	109-99-9	
Chloroform	Not detected	70		ug/kg	71.1	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	71.1	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	71.1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	4,000		ug/kg	71.1	108-10-1	
2-Hexanone	Not detected	4,000		ug/kg	71.1	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	71.1	56-23-5	
Benzene	Not detected	70		ug/kg	71.1	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	71.1	107-06-2	
Trichloroethene	Not detected	70		ug/kg	71.1	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	71.1	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	71.1	75-27-4	
Dibromomethane	Not detected	400		ug/kg	71.1	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	71.1	10061-01-5	
Toluene	Not detected	70		ug/kg	71.1	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	71.1	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	71.1	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	71.1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	71.1	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	71.1	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	71.1	106-93-4	M

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S74399.13 (continued)

Sample Tag: SB-12 (3-3.5)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 17:07, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chlorobenzene	Not detected	70		ug/kg	71.1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	71.1	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	71.1	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	71.1		
o-Xylene	Not detected	70		ug/kg	71.1	95-47-6	
Styrene	Not detected	70		ug/kg	71.1	100-42-5	
Isopropylbenzene	Not detected	400		ug/kg	71.1	98-82-8	
Bromoform	Not detected	100		ug/kg	71.1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	71.1	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	71.1	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	71.1	103-65-1	
Bromobenzene	Not detected	100		ug/kg	71.1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	71.1	108-67-8	
tert-Butylbenzene	Not detected	70		ug/kg	71.1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	71.1	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	71.1	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	71.1	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	71.1	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	71.1	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	71.1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	71.1	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	71.1	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	71.1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	400		ug/kg	71.1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	470		ug/kg	71.1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	470		ug/kg	71.1	87-61-6	
Naphthalene	Not detected	400		ug/kg	71.1	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	71.1	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S74399.14

Sample Tag: SB-12 (1-2)

Collected Date/Time: 05/09/2025 10:26

Matrix: Soil

COC Reference: 178254

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	
PNA Extraction*	Completed	SW3546	05/14/25 16:00	PTW	
Sample wt. (g) / Methanol (ml)*	11.173/11	SW5035A	05/12/25 16:33	ACK	
Mercury Digestion	Completed	SW7471B	05/13/25 13:00	CTV	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	87	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 12:41, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	1,280	200		ug/kg	246	7440-38-2	
Barium	20,000	1,000		ug/kg	246	7440-39-3	
Cadmium	Not detected	200		ug/kg	246	7440-43-9	
Chromium	2,690	500		ug/kg	246	7440-47-3	
Copper	1,680	500		ug/kg	246	7440-50-8	
Lead	6,120	300		ug/kg	246	7439-92-1	
Selenium	Not detected	400		ug/kg	246	7782-49-2	
Silver	Not detected	200		ug/kg	246	7440-22-4	
Zinc	12,000	500		ug/kg	246	7440-66-6	

Method: SW7471B, Run Date: 05/13/25 16:21, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	50		ug/kg	64	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 21:01, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	



Analytical Laboratory Report

Lab Sample ID: S74399.14 (continued)

Sample Tag: SB-12 (1-2)

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 21:01, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 17:31, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	64.1	60-29-7	
Acetone	Not detected	1,000		ug/kg	64.1	67-64-1	
Methyl iodide	Not detected	100		ug/kg	64.1	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	64.1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	64.1	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	64.1	107-13-1	
2-Butanone (MEK)	Not detected	960		ug/kg	64.1	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	64.1	75-71-8	
Chloromethane	Not detected	300		ug/kg	64.1	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	64.1	75-01-4	
Bromomethane	Not detected	300		ug/kg	64.1	74-83-9	
Chloroethane	Not detected	300		ug/kg	64.1	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	64.1	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	64.1	75-35-4	
Methylene chloride	Not detected	100		ug/kg	64.1	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	64.1	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	64.1	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	64.1	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	64.1	109-99-9	
Chloroform	Not detected	60		ug/kg	64.1	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	64.1	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	64.1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	64.1	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	64.1	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	64.1	56-23-5	
Benzene	Not detected	60		ug/kg	64.1	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	64.1	107-06-2	
Trichloroethene	Not detected	60		ug/kg	64.1	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	64.1	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	64.1	75-27-4	
Dibromomethane	Not detected	300		ug/kg	64.1	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	64.1	10061-01-5	
Toluene	Not detected	60		ug/kg	64.1	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	64.1	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	64.1	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	64.1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	64.1	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	64.1	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	64.1	106-93-4	M

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S74399.14 (continued)

Sample Tag: SB-12 (1-2)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 17:31, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chlorobenzene	Not detected	60		ug/kg	64.1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	64.1	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	64.1	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	64.1		
o-Xylene	Not detected	60		ug/kg	64.1	95-47-6	
Styrene	Not detected	60		ug/kg	64.1	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	64.1	98-82-8	
Bromoform	Not detected	100		ug/kg	64.1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	64.1	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	64.1	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	64.1	103-65-1	
Bromobenzene	Not detected	100		ug/kg	64.1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	64.1	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	64.1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	64.1	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	64.1	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	64.1	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	64.1	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	64.1	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	64.1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	64.1	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	64.1	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	64.1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	64.1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	420		ug/kg	64.1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	420		ug/kg	64.1	87-61-6	
Naphthalene	Not detected	300		ug/kg	64.1	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	64.1	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S74399.15

Sample Tag: SB-13 (3.5-4)

Collected Date/Time: 05/09/2025 10:13

Matrix: Soil

COC Reference: 178254

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	
PNA Extraction*	Completed	SW3546	05/14/25 16:00	PTW	
Sample wt. (g) / Methanol (ml)*	10.132/10	SW5035A	05/12/25 16:33	ACK	
Mercury Digestion	Completed	SW7471B	05/13/25 13:00	CTV	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	86	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 13:05, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	2,260	200		ug/kg	250	7440-38-2	
Barium	22,500	1,000		ug/kg	250	7440-39-3	
Cadmium	Not detected	200		ug/kg	250	7440-43-9	
Chromium	5,970	500		ug/kg	250	7440-47-3	
Copper	3,380	500		ug/kg	250	7440-50-8	
Lead	3,350	300		ug/kg	250	7439-92-1	
Selenium	Not detected	400		ug/kg	250	7782-49-2	
Silver	Not detected	200		ug/kg	250	7440-22-4	
Zinc	12,300	500		ug/kg	250	7440-66-6	

Method: SW7471B, Run Date: 05/13/25 16:24, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	50		ug/kg	64	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 21:24, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	



Analytical Laboratory Report

Lab Sample ID: S74399.15 (continued)

Sample Tag: SB-13 (3.5-4)

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 21:24, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 17:55, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	65.5	60-29-7	
Acetone	1,000	1,000		ug/kg	65.5	67-64-1	
Methyl iodide	Not detected	100		ug/kg	65.5	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	65.5	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	65.5	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	65.5	107-13-1	
2-Butanone (MEK)	Not detected	980		ug/kg	65.5	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	65.5	75-71-8	
Chloromethane	Not detected	300		ug/kg	65.5	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	65.5	75-01-4	
Bromomethane	Not detected	300		ug/kg	65.5	74-83-9	
Chloroethane	Not detected	300		ug/kg	65.5	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	65.5	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	65.5	75-35-4	
Methylene chloride	Not detected	100		ug/kg	65.5	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	65.5	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	65.5	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	65.5	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	65.5	109-99-9	
Chloroform	Not detected	70		ug/kg	65.5	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	65.5	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	65.5	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	65.5	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	65.5	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	65.5	56-23-5	
Benzene	Not detected	70		ug/kg	65.5	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	65.5	107-06-2	
Trichloroethene	Not detected	70		ug/kg	65.5	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	65.5	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	65.5	75-27-4	
Dibromomethane	Not detected	300		ug/kg	65.5	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	65.5	10061-01-5	
Toluene	Not detected	70		ug/kg	65.5	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	65.5	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	65.5	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	65.5	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	65.5	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	65.5	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	65.5	106-93-4	M

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S74399.15 (continued)

Sample Tag: SB-13 (3.5-4)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 17:55, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chlorobenzene	Not detected	70		ug/kg	65.5	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	65.5	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	65.5	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	65.5		
o-Xylene	Not detected	70		ug/kg	65.5	95-47-6	
Styrene	Not detected	70		ug/kg	65.5	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	65.5	98-82-8	
Bromoform	Not detected	100		ug/kg	65.5	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	65.5	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	65.5	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	65.5	103-65-1	
Bromobenzene	Not detected	100		ug/kg	65.5	108-86-1	
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	65.5	108-67-8	
tert-Butylbenzene	Not detected	70		ug/kg	65.5	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	65.5	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	65.5	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	65.5	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	65.5	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	65.5	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	65.5	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	65.5	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	65.5	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	65.5	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	65.5	96-12-8	
1,2,4-Trichlorobenzene	Not detected	430		ug/kg	65.5	120-82-1	
1,2,3-Trichlorobenzene	Not detected	430		ug/kg	65.5	87-61-6	
Naphthalene	Not detected	300		ug/kg	65.5	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	65.5	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S74399.16

Sample Tag: SB-14 (3.5-4)

Collected Date/Time: 05/09/2025 09:30

Matrix: Soil

COC Reference: 178254

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	
PNA Extraction*	Completed	SW3546	05/14/25 16:00	PTW	
Sample wt. (g) / Methanol (ml)*	10.044/10	SW5035A	05/13/25 11:48	ACK	
Mercury Digestion	Completed	SW7471B	05/13/25 13:00	CTV	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	88	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 13:07, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	790	200		ug/kg	240	7440-38-2	
Barium	21,300	1,000		ug/kg	240	7440-39-3	
Cadmium	Not detected	200		ug/kg	240	7440-43-9	
Chromium	2,510	500		ug/kg	240	7440-47-3	
Copper	970	500		ug/kg	240	7440-50-8	
Lead	2,350	300		ug/kg	240	7439-92-1	
Selenium	Not detected	400		ug/kg	240	7782-49-2	
Silver	Not detected	200		ug/kg	240	7440-22-4	
Zinc	10,400	500		ug/kg	240	7440-66-6	

Method: SW7471B, Run Date: 05/13/25 16:28, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	50		ug/kg	64	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 21:47, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	



Analytical Laboratory Report

Lab Sample ID: S74399.16 (continued)

Sample Tag: SB-14 (3.5-4)

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 21:47, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/13/25 15:36, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	63.4	60-29-7	x
Acetone	Not detected	1,000		ug/kg	63.4	67-64-1	x
Methyl iodide	Not detected	100		ug/kg	63.4	74-88-4	x
Carbon disulfide	Not detected	300		ug/kg	63.4	75-15-0	x
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	63.4	1634-04-4	x
Acrylonitrile	Not detected	100		ug/kg	63.4	107-13-1	x
2-Butanone (MEK)	Not detected	950		ug/kg	63.4	78-93-3	x
Dichlorodifluoromethane	Not detected	300		ug/kg	63.4	75-71-8	x
Chloromethane	Not detected	300		ug/kg	63.4	74-87-3	x
Vinyl chloride	Not detected	60		ug/kg	63.4	75-01-4	x
Bromomethane	Not detected	300		ug/kg	63.4	74-83-9	x
Chloroethane	Not detected	300		ug/kg	63.4	75-00-3	x
Trichlorofluoromethane	Not detected	100		ug/kg	63.4	75-69-4	x
1,1-Dichloroethene	Not detected	60		ug/kg	63.4	75-35-4	x
Methylene chloride	Not detected	100		ug/kg	63.4	75-09-2	x
trans-1,2-Dichloroethene	Not detected	60		ug/kg	63.4	156-60-5	x
1,1-Dichloroethane	Not detected	60		ug/kg	63.4	75-34-3	x
cis-1,2-Dichloroethene	Not detected	60		ug/kg	63.4	156-59-2	x
Tetrahydrofuran	Not detected	1,000		ug/kg	63.4	109-99-9	x
Chloroform	Not detected	60		ug/kg	63.4	67-66-3	x
Bromochloromethane	Not detected	100		ug/kg	63.4	74-97-5	x
1,1,1-Trichloroethane	Not detected	60		ug/kg	63.4	71-55-6	x
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	63.4	108-10-1	x
2-Hexanone	Not detected	3,000		ug/kg	63.4	591-78-6	x
Carbon tetrachloride	Not detected	60		ug/kg	63.4	56-23-5	x
Benzene	Not detected	60		ug/kg	63.4	71-43-2	x
1,2-Dichloroethane	Not detected	60		ug/kg	63.4	107-06-2	x
Trichloroethene	Not detected	60		ug/kg	63.4	79-01-6	x
1,2-Dichloropropane	Not detected	60		ug/kg	63.4	78-87-5	x
Bromodichloromethane	Not detected	100		ug/kg	63.4	75-27-4	x
Dibromomethane	Not detected	300		ug/kg	63.4	74-95-3	x
cis-1,3-Dichloropropene	Not detected	60		ug/kg	63.4	10061-01-5	x
Toluene	Not detected	60		ug/kg	63.4	108-88-3	x
trans-1,3-Dichloropropene	Not detected	60		ug/kg	63.4	10061-02-6	x
1,1,2-Trichloroethane	Not detected	60		ug/kg	63.4	79-00-5	x
Tetrachloroethene	Not detected	60		ug/kg	63.4	127-18-4	x
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	63.4	110-57-6	x
Dibromochloromethane	Not detected	100		ug/kg	63.4	124-48-1	x

x-Preserved from bulk sample



Analytical Laboratory Report

Lab Sample ID: S74399.16 (continued)

Sample Tag: SB-14 (3.5-4)

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/13/25 15:36, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,2-Dibromoethane	Not detected	30		ug/kg	63.4	106-93-4	Mx
Chlorobenzene	Not detected	60		ug/kg	63.4	108-90-7	x
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	63.4	630-20-6	x
Ethylbenzene	Not detected	60		ug/kg	63.4	100-41-4	x
p,m-Xylene	Not detected	100		ug/kg	63.4		x
o-Xylene	Not detected	60		ug/kg	63.4	95-47-6	x
Styrene	Not detected	60		ug/kg	63.4	100-42-5	x
Isopropylbenzene	Not detected	300		ug/kg	63.4	98-82-8	x
Bromoform	Not detected	100		ug/kg	63.4	75-25-2	x
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	63.4	79-34-5	x
1,2,3-Trichloropropane	Not detected	100		ug/kg	63.4	96-18-4	x
n-Propylbenzene	Not detected	60		ug/kg	63.4	103-65-1	x
Bromobenzene	Not detected	100		ug/kg	63.4	108-86-1	x
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	63.4	108-67-8	x
tert-Butylbenzene	Not detected	60		ug/kg	63.4	98-06-6	x
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	63.4	95-63-6	x
sec-Butylbenzene	Not detected	60		ug/kg	63.4	135-98-8	x
p-Isopropyltoluene	Not detected	100		ug/kg	63.4	99-87-6	x
1,3-Dichlorobenzene	Not detected	100		ug/kg	63.4	541-73-1	x
1,4-Dichlorobenzene	Not detected	100		ug/kg	63.4	106-46-7	x
1,2-Dichlorobenzene	Not detected	100		ug/kg	63.4	95-50-1	x
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	63.4	526-73-8	x
n-Butylbenzene	Not detected	60		ug/kg	63.4	104-51-8	x
Hexachloroethane	Not detected	400		ug/kg	63.4	67-72-1	x
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	63.4	96-12-8	x
1,2,4-Trichlorobenzene	Not detected	420		ug/kg	63.4	120-82-1	x
1,2,3-Trichlorobenzene	Not detected	420		ug/kg	63.4	87-61-6	x
Naphthalene	Not detected	300		ug/kg	63.4	91-20-3	x
2-Methylnaphthalene	Not detected	100		ug/kg	63.4	91-57-6	x

M-Result reported to MDL not RDL x-Preserved from bulk sample



Analytical Laboratory Report

Lab Sample ID: S74399.17

Sample Tag: SB-14-GW

Collected Date/Time: 05/09/2025 09:45

Matrix: Groundwater

COC Reference: 178254

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Amber	None	Yes	3.2	IR
1	125mL Plastic	HNO3	Yes	3.2	IR
2	40mL Glass	HCL	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Mercury Digestion	Completed	E245.1	05/13/25 11:45	CTV	
pH check for VOCs*	<2	N/A	05/13/25 11:20	ACK	
Metal Digestion	Completed	SW3015A	05/13/25 09:05	JRH	
PNA Extraction	Completed	SW3510C	05/15/25 10:30	JWR	

Metals

Method: E200.8, Run Date: 05/13/25 12:10, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	2	2		ug/L	5	7440-38-2	
Barium	27	5		ug/L	5	7440-39-3	
Cadmium	Not detected	0.5		ug/L	5	7440-43-9	
Chromium	Not detected	5		ug/L	5	7440-47-3	
Copper	Not detected	5		ug/L	5	7440-50-8	
Lead	Not detected	3		ug/L	5	7439-92-1	
Selenium	Not detected	5		ug/L	5	7782-49-2	
Silver	Not detected	0.5		ug/L	5	7440-22-4	
Zinc	7	5		ug/L	5	7440-66-6	

Method: E245.1, Run Date: 05/13/25 15:14, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.2		ug/L	1	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatic Hydrocarbon, Method: SW8270D, Run Date: 05/15/25 19:59, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	5		ug/L	2	83-32-9	
Acenaphthylene	Not detected	5		ug/L	2	208-96-8	
Anthracene	Not detected	5		ug/L	2	120-12-7	
Benzo(a)anthracene	Not detected	1		ug/L	2	56-55-3	
Benzo(a)pyrene	Not detected	1		ug/L	2	50-32-8	
Benzo(b)fluoranthene	Not detected	1		ug/L	2	205-99-2	
Benzo(k)fluoranthene	Not detected	1		ug/L	2	207-08-9	
Benzo(ghi)perylene	Not detected	1		ug/L	2	191-24-2	
Chrysene	Not detected	1		ug/L	2	218-01-9	
Dibenzo(ah)anthracene	Not detected	2		ug/L	2	53-70-3	
Fluoranthene	Not detected	1		ug/L	2	206-44-0	
Fluorene	Not detected	5		ug/L	2	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	2		ug/L	2	193-39-5	
Naphthalene	Not detected	5		ug/L	2	91-20-3	
Phenanthrene	Not detected	2		ug/L	2	85-01-8	



Analytical Laboratory Report

Lab Sample ID: S74399.17 (continued)

Sample Tag: SB-14-GW

Polynuclear Aromatic Hydrocarbon, Method: SW8270D, Run Date: 05/15/25 19:59, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Pyrene	Not detected	5		ug/L	2	129-00-0	
2-Methylnaphthalene	Not detected	5		ug/L	2	91-57-6	
1-Methylnaphthalene	Not detected	5		ug/L	2	90-12-0	

Organics

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 05/13/25 05:41, Analyst: NDK

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	10		ug/L	1	60-29-7	
Acetone	Not detected	50		ug/L	1	67-64-1	
Methyl iodide	Not detected	1		ug/L	1	74-88-4	
Carbon disulfide	Not detected	5		ug/L	1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	5		ug/L	1	1634-04-4	
Acrylonitrile	Not detected	2		ug/L	1	107-13-1	
2-Butanone (MEK)	Not detected	25		ug/L	1	78-93-3	
Dichlorodifluoromethane	Not detected	5		ug/L	1	75-71-8	
Chloromethane	Not detected	5		ug/L	1	74-87-3	
Vinyl chloride	Not detected	1		ug/L	1	75-01-4	
Bromomethane	Not detected	5		ug/L	1	74-83-9	
Chloroethane	Not detected	5		ug/L	1	75-00-3	
Trichlorofluoromethane	Not detected	1		ug/L	1	75-69-4	
1,1-Dichloroethene	Not detected	1		ug/L	1	75-35-4	
Methylene chloride	Not detected	5		ug/L	1	75-09-2	
trans-1,2-Dichloroethene	Not detected	1		ug/L	1	156-60-5	
1,1-Dichloroethane	Not detected	1		ug/L	1	75-34-3	
cis-1,2-Dichloroethene	Not detected	1		ug/L	1	156-59-2	
Tetrahydrofuran	Not detected	90		ug/L	1	109-99-9	
Chloroform	Not detected	1		ug/L	1	67-66-3	
Bromochloromethane	Not detected	1		ug/L	1	74-97-5	
1,1,1-Trichloroethane	Not detected	1		ug/L	1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	50		ug/L	1	108-10-1	
2-Hexanone	Not detected	50		ug/L	1	591-78-6	
Carbon tetrachloride	Not detected	1		ug/L	1	56-23-5	
Benzene	Not detected	1		ug/L	1	71-43-2	
1,2-Dichloroethane	Not detected	1		ug/L	1	107-06-2	
Trichloroethene	Not detected	1		ug/L	1	79-01-6	
1,2-Dichloropropane	Not detected	1		ug/L	1	78-87-5	
Bromodichloromethane	Not detected	1		ug/L	1	75-27-4	
Dibromomethane	Not detected	5		ug/L	1	74-95-3	
cis-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-01-5	
Toluene	Not detected	1		ug/L	1	108-88-3	
trans-1,3-Dichloropropene	Not detected	1		ug/L	1	10061-02-6	
1,1,2-Trichloroethane	Not detected	1		ug/L	1	79-00-5	
Tetrachloroethene	Not detected	1		ug/L	1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	1		ug/L	1	110-57-6	
Dibromochloromethane	Not detected	5		ug/L	1	124-48-1	
1,2-Dibromoethane	Not detected	1		ug/L	1	106-93-4	
Chlorobenzene	Not detected	1		ug/L	1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	1		ug/L	1	630-20-6	
Ethylbenzene	Not detected	1		ug/L	1	100-41-4	
p,m-Xylene	Not detected	2		ug/L	1		



Analytical Laboratory Report

Lab Sample ID: S74399.17 (continued)

Sample Tag: SB-14-GW

Volatile Organics - DEQ List, Method: SW5030C/8260C, Run Date: 05/13/25 05:41, Analyst: NDK (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
o-Xylene	Not detected	1		ug/L	1	95-47-6	
Styrene	Not detected	1		ug/L	1	100-42-5	
Isopropylbenzene	Not detected	5		ug/L	1	98-82-8	
Bromoform	Not detected	1		ug/L	1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	1		ug/L	1	79-34-5	
1,2,3-Trichloropropane	Not detected	1		ug/L	1	96-18-4	
n-Propylbenzene	Not detected	1		ug/L	1	103-65-1	
Bromobenzene	Not detected	1		ug/L	1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	1		ug/L	1	108-67-8	
tert-Butylbenzene	Not detected	1		ug/L	1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	1		ug/L	1	95-63-6	
sec-Butylbenzene	Not detected	1		ug/L	1	135-98-8	
p-Isopropyltoluene	Not detected	5		ug/L	1	99-87-6	
1,3-Dichlorobenzene	Not detected	1		ug/L	1	541-73-1	
1,4-Dichlorobenzene	Not detected	1		ug/L	1	106-46-7	
1,2-Dichlorobenzene	Not detected	1		ug/L	1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	1		ug/L	1	526-73-8	
n-Butylbenzene	Not detected	1		ug/L	1	104-51-8	
Hexachloroethane	Not detected	5		ug/L	1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	5		ug/L	1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	5		ug/L	1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	5		ug/L	1	87-61-6	
Naphthalene	Not detected	5		ug/L	1	91-20-3	
2-Methylnaphthalene	Not detected	5		ug/L	1	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S74399.18

Sample Tag: SB-4-GW

Collected Date/Time: 05/09/2025 13:02

Matrix: Groundwater

COC Reference: 178254

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	125mL Plastic	HNO3	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3015A	05/13/25 09:05	JRH	

Metals

Method: E200.8, Run Date: 05/13/25 12:12, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	Not detected	3		ug/L	5	7439-92-1	



Analytical Laboratory Report

Lab Sample ID: S74399.19

Sample Tag: MW-15

Collected Date/Time: 05/09/2025 14:35

Matrix: Groundwater

COC Reference: 178254

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Amber	None	Yes	3.2	IR
1	125mL Plastic	HNO3	Yes	3.2	IR
1	15mL Centrifuge Tube	None	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.02/6.42/10	ASTMD7979-19M	05/14/25 12:30	CED	
Mercury Digestion	Completed	E245.1	05/13/25 11:45	CTV	
Metal Digestion	Completed	SW3015A	05/13/25 09:05	JRH	
PNA Extraction	Completed	SW3510C	05/15/25 10:30	JWR	

Metals

Method: E200.8, Run Date: 05/13/25 12:14, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	4	2		ug/L	5	7440-38-2	
Cadmium	Not detected	0.5		ug/L	5	7440-43-9	
Lead	Not detected	3		ug/L	5	7439-92-1	
Selenium	Not detected	5		ug/L	5	7782-49-2	

Method: E245.1, Run Date: 05/13/25 15:17, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.2		ug/L	1	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatic Hydrocarbon, Method: SW8270D, Run Date: 05/15/25 20:22, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	5		ug/L	2	83-32-9	
Acenaphthylene	Not detected	5		ug/L	2	208-96-8	
Anthracene	Not detected	5		ug/L	2	120-12-7	
Benzo(a)anthracene	Not detected	1		ug/L	2	56-55-3	
Benzo(a)pyrene	Not detected	1		ug/L	2	50-32-8	
Benzo(b)fluoranthene	Not detected	1		ug/L	2	205-99-2	
Benzo(k)fluoranthene	Not detected	1		ug/L	2	207-08-9	
Benzo(ghi)perylene	Not detected	1		ug/L	2	191-24-2	
Chrysene	Not detected	1		ug/L	2	218-01-9	
Dibenzo(ah)anthracene	Not detected	2		ug/L	2	53-70-3	
Fluoranthene	Not detected	1		ug/L	2	206-44-0	
Fluorene	Not detected	5		ug/L	2	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	2		ug/L	2	193-39-5	
Naphthalene	Not detected	5		ug/L	2	91-20-3	
Phenanthrene	Not detected	2		ug/L	2	85-01-8	
Pyrene	Not detected	5		ug/L	2	129-00-0	
2-Methylnaphthalene	Not detected	5		ug/L	2	91-57-6	
1-Methylnaphthalene	Not detected	5		ug/L	2	90-12-0	



Analytical Laboratory Report

Lab Sample ID: S74399.19 (continued)

Sample Tag: MW-15

Organics

40 PFAs, Method: ASTMD7979-19M, Run Date: 05/15/25 02:58, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	0.011		ug/L	2.17	375-22-4	
PFPeA*	Not detected	0.0043		ug/L	2.17	2706-90-3	
4:2 FTSA*	Not detected	0.0022		ug/L	2.17	757124-72-4	
PFHxA*	Not detected	0.0022		ug/L	2.17	307-24-4	
PFBS*	0.021	0.0022		ug/L	2.17	375-73-5	
PFHpA*	Not detected	0.0022		ug/L	2.17	375-85-9	
PFPeS*	Not detected	0.0022		ug/L	2.17	2706-91-4	
6:2 FTSA*	Not detected	0.0022		ug/L	2.17	27619-97-2	
PFOA*	Not detected	0.0022		ug/L	2.17	335-67-1	
PFHxS*	Not detected	0.0022		ug/L	2.17	355-46-4	
PFHxS-LN*	Not detected	0.0022		ug/L	2.17	355-46-4-LN	
PFHxS-BR*	Not detected	0.0022		ug/L	2.17	355-46-4-BR	
PFNA*	Not detected	0.0022		ug/L	2.17	375-95-1	
8:2 FTSA*	Not detected	0.0022		ug/L	2.17	39108-34-4	
PFHpS*	Not detected	0.0022		ug/L	2.17	375-92-8	
PFDA*	Not detected	0.0022		ug/L	2.17	335-76-2	
N-MeFOSAA*	Not detected	0.0022		ug/L	2.17	2355-31-9	
EtFOSAA*	Not detected	0.0043		ug/L	2.17	2991-50-6	
PFOS*	Not detected	0.0022		ug/L	2.17	1763-23-1	
PFOS-LN*	Not detected	0.0022		ug/L	2.17	1763-23-1-LN	
PFOS-BR*	Not detected	0.0022		ug/L	2.17	1763-23-1-BR	
PFUnDA*	Not detected	0.0022		ug/L	2.17	2058-94-8	
PFNS*	Not detected	0.0022		ug/L	2.17	68259-12-1	
PFDaDA*	Not detected	0.0022		ug/L	2.17	307-55-1	
PFDS*	Not detected	0.0022		ug/L	2.17	335-77-3	
PFTeDA*	Not detected	0.0022		ug/L	2.17	72629-94-8	
FOSA*	Not detected	0.0022		ug/L	2.17	754-91-6	
PFTeDA*	Not detected	0.0043		ug/L	2.17	376-06-7	
11CI-PF3OUdS*	Not detected	0.0022		ug/L	2.17	763051-92-9	
9CI-PF3ONS*	Not detected	0.0022		ug/L	2.17	756426-58-1	
ADONA*	Not detected	0.0022		ug/L	2.17	919005-14-4	
HFPO-DA*	Not detected	0.011		ug/L	2.17	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	0.011		ug/L	2.17	812-70-4	
FPePA (5:3 FTCA)*	Not detected	0.011		ug/L	2.17	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	0.011		ug/L	2.17	356-02-5	
NFDHA*	Not detected	0.0022		ug/L	2.17	151772-58-6	
PFEESA*	Not detected	0.0022		ug/L	2.17	113507-82-7	
PFMBA*	Not detected	0.0022		ug/L	2.17	863090-89-5	
PFMPA*	Not detected	0.0022		ug/L	2.17	377-73-1	
NMeFOSAM*	Not detected	0.0022		ug/L	2.17	31506-32-8	
NMeFOSE*	Not detected	0.0043		ug/L	2.17	24448-09-7	
NEtFOSAM*	Not detected	0.0022		ug/L	2.17	4151-50-2	
NEtFOSE*	Not detected	0.0043		ug/L	2.17	1691-99-2	
PFDoS*	Not detected	0.0043		ug/L	2.17	79780-39-5	



Analytical Laboratory Report

Lab Sample ID: S74399.20

Sample Tag: DUP-1S

Collected Date/Time: 05/08/2025 00:01

Matrix: Soil

COC Reference: 178254

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	84	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 13:08, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	11,500	300		ug/kg	253	7439-92-1	



Analytical Laboratory Report

Lab Sample ID: S74399.21

Sample Tag: DUP-2S

Collected Date/Time: 05/08/2025 00:01

Matrix: Soil

COC Reference: 178254

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	3.2	IR
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/14/25 08:50	JRH	
PNA Extraction*	Completed	SW3546	05/14/25 16:00	PTW	
Sample wt. (g) / Methanol (ml)*	10.451/10	SW5035A	05/12/25 16:33	ACK	
Mercury Digestion	Completed	SW7471B	05/13/25 13:00	CTV	

Inorganics

Method: SM2540B, Run Date: 05/13/25 12:45, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	92	1		%	1		

Metals

Method: SW6020A, Run Date: 05/14/25 13:10, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	5,240	200		ug/kg	235	7440-38-2	
Barium	19,600	1,000		ug/kg	235	7440-39-3	
Cadmium	Not detected	200		ug/kg	235	7440-43-9	
Chromium	7,820	500		ug/kg	235	7440-47-3	
Copper	9,330	500		ug/kg	235	7440-50-8	
Lead	8,290	300		ug/kg	235	7439-92-1	
Selenium	Not detected	400		ug/kg	235	7782-49-2	
Silver	Not detected	200		ug/kg	235	7440-22-4	
Zinc	29,600	500		ug/kg	235	7440-66-6	

Method: SW7471B, Run Date: 05/13/25 16:37, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	50		ug/kg	60	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 22:10, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	



Analytical Laboratory Report

Lab Sample ID: S74399.21 (continued)

Sample Tag: DUP-2S

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/15/25 22:10, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 18:19, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	56.4	60-29-7	
Acetone	Not detected	1,000		ug/kg	56.4	67-64-1	
Methyl iodide	Not detected	100		ug/kg	56.4	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	56.4	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	56.4	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	56.4	107-13-1	
2-Butanone (MEK)	Not detected	850		ug/kg	56.4	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	56.4	75-71-8	
Chloromethane	Not detected	300		ug/kg	56.4	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	56.4	75-01-4	
Bromomethane	Not detected	200		ug/kg	56.4	74-83-9	
Chloroethane	Not detected	300		ug/kg	56.4	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	56.4	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	56.4	75-35-4	
Methylene chloride	Not detected	100		ug/kg	56.4	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	56.4	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	56.4	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	56.4	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	56.4	109-99-9	
Chloroform	Not detected	60		ug/kg	56.4	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	56.4	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	56.4	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	56.4	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	56.4	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	56.4	56-23-5	
Benzene	Not detected	60		ug/kg	56.4	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	56.4	107-06-2	
Trichloroethene	Not detected	60		ug/kg	56.4	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	56.4	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	56.4	75-27-4	
Dibromomethane	Not detected	300		ug/kg	56.4	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	56.4	10061-01-5	
Toluene	Not detected	60		ug/kg	56.4	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	56.4	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	56.4	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	56.4	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	56.4	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	56.4	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	56.4	106-93-4	M

M-Result reported to MDL not RDL



Analytical Laboratory Report

Lab Sample ID: S74399.21 (continued)

Sample Tag: DUP-2S

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 18:19, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chlorobenzene	Not detected	60		ug/kg	56.4	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	56.4	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	56.4	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	56.4		
o-Xylene	Not detected	60		ug/kg	56.4	95-47-6	
Styrene	Not detected	60		ug/kg	56.4	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	56.4	98-82-8	
Bromoform	Not detected	100		ug/kg	56.4	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	56.4	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	56.4	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	56.4	103-65-1	
Bromobenzene	Not detected	100		ug/kg	56.4	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	56.4	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	56.4	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	56.4	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	56.4	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	56.4	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	56.4	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	56.4	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	56.4	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	56.4	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	56.4	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	56.4	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	56.4	96-12-8	
1,2,4-Trichlorobenzene	Not detected	370		ug/kg	56.4	120-82-1	
1,2,3-Trichlorobenzene	Not detected	370		ug/kg	56.4	87-61-6	
Naphthalene	Not detected	300		ug/kg	56.4	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	56.4	91-57-6	



Analytical Laboratory Report

Lab Sample ID: S74399.22

Sample Tag: DUP-1-GW

Collected Date/Time: 05/09/2025 00:01

Matrix: Groundwater

COC Reference: 178254

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	1L Amber	None	Yes	3.2	IR
1	125mL Plastic	HNO3	Yes	3.2	IR
1	15mL Centrifuge Tube	None	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Initial wt. (g) / Final wt. (g) / Volume (ml)*	11.08/6.44/10	ASTMD7979-19M	05/14/25 12:30	CED	
Mercury Digestion	Completed	E245.1	05/13/25 11:45	CTV	
Metal Digestion	Completed	SW3015A	05/13/25 09:05	JRH	
PNA Extraction	Completed	SW3510C	05/15/25 10:30	JWR	

Metals

Method: E200.8, Run Date: 05/13/25 12:16, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	Not detected	2		ug/L	5	7440-38-2	
Cadmium	Not detected	0.5		ug/L	5	7440-43-9	
Lead	Not detected	3		ug/L	5	7439-92-1	
Selenium	Not detected	5		ug/L	5	7782-49-2	

Method: E245.1, Run Date: 05/13/25 15:21, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.2		ug/L	1	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatic Hydrocarbon, Method: SW8270D, Run Date: 05/15/25 20:44, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	5		ug/L	2	83-32-9	
Acenaphthylene	Not detected	5		ug/L	2	208-96-8	
Anthracene	Not detected	5		ug/L	2	120-12-7	
Benzo(a)anthracene	Not detected	1		ug/L	2	56-55-3	
Benzo(a)pyrene	Not detected	1		ug/L	2	50-32-8	
Benzo(b)fluoranthene	Not detected	1		ug/L	2	205-99-2	
Benzo(k)fluoranthene	Not detected	1		ug/L	2	207-08-9	
Benzo(ghi)perylene	Not detected	1		ug/L	2	191-24-2	
Chrysene	Not detected	1		ug/L	2	218-01-9	
Dibenzo(ah)anthracene	Not detected	2		ug/L	2	53-70-3	
Fluoranthene	Not detected	1		ug/L	2	206-44-0	
Fluorene	Not detected	5		ug/L	2	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	2		ug/L	2	193-39-5	
Naphthalene	Not detected	5		ug/L	2	91-20-3	
Phenanthrene	Not detected	2		ug/L	2	85-01-8	
Pyrene	Not detected	5		ug/L	2	129-00-0	
2-Methylnaphthalene	Not detected	5		ug/L	2	91-57-6	
1-Methylnaphthalene	Not detected	5		ug/L	2	90-12-0	



Analytical Laboratory Report

Lab Sample ID: S74399.22 (continued)

Sample Tag: DUP-1-GW

Organics

40 PFAs, Method: ASTMD7979-19M, Run Date: 05/15/25 03:18, Analyst: CED

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
PFBA*	Not detected	0.011		ug/L	2.16	375-22-4	
PFPeA*	Not detected	0.0043		ug/L	2.16	2706-90-3	
4:2 FTSA*	Not detected	0.0022		ug/L	2.16	757124-72-4	
PFHxA*	Not detected	0.0022		ug/L	2.16	307-24-4	
PFBS*	0.0087	0.0022		ug/L	2.16	375-73-5	
PFHpA*	Not detected	0.0022		ug/L	2.16	375-85-9	
PFPeS*	Not detected	0.0022		ug/L	2.16	2706-91-4	
6:2 FTSA*	Not detected	0.0022		ug/L	2.16	27619-97-2	
PFOA*	Not detected	0.0022		ug/L	2.16	335-67-1	
PFHxS*	Not detected	0.0022		ug/L	2.16	355-46-4	
PFHxS-LN*	Not detected	0.0022		ug/L	2.16	355-46-4-LN	
PFHxS-BR*	Not detected	0.0022		ug/L	2.16	355-46-4-BR	
PFNA*	Not detected	0.0022		ug/L	2.16	375-95-1	
8:2 FTSA*	Not detected	0.0022		ug/L	2.16	39108-34-4	
PFHpS*	Not detected	0.0022		ug/L	2.16	375-92-8	
PFDA*	Not detected	0.0022		ug/L	2.16	335-76-2	
N-MeFOSAA*	Not detected	0.0022		ug/L	2.16	2355-31-9	
EtFOSAA*	Not detected	0.0043		ug/L	2.16	2991-50-6	
PFOS*	Not detected	0.0022		ug/L	2.16	1763-23-1	
PFOS-LN*	Not detected	0.0022		ug/L	2.16	1763-23-1-LN	
PFOS-BR*	Not detected	0.0022		ug/L	2.16	1763-23-1-BR	
PFUnDA*	Not detected	0.0022		ug/L	2.16	2058-94-8	
PFNS*	Not detected	0.0022		ug/L	2.16	68259-12-1	
PFDoDA*	Not detected	0.0022		ug/L	2.16	307-55-1	
PFDS*	Not detected	0.0022		ug/L	2.16	335-77-3	
PFTrDA*	Not detected	0.0022		ug/L	2.16	72629-94-8	
FOSA*	Not detected	0.0022		ug/L	2.16	754-91-6	
PFTeDA*	Not detected	0.0043		ug/L	2.16	376-06-7	
11CI-PF3OUdS*	Not detected	0.0022		ug/L	2.16	763051-92-9	
9CI-PF3ONS*	Not detected	0.0022		ug/L	2.16	756426-58-1	
ADONA*	Not detected	0.0022		ug/L	2.16	919005-14-4	
HFPO-DA*	Not detected	0.011		ug/L	2.16	13252-13-6	
FHpPA (7:3 FTCA)*	Not detected	0.011		ug/L	2.16	812-70-4	
FPePA (5:3 FTCA)*	Not detected	0.011		ug/L	2.16	914637-49-3	
FPrPA (3:3 FTCA)*	Not detected	0.011		ug/L	2.16	356-02-5	
NFDHA*	Not detected	0.0022		ug/L	2.16	151772-58-6	
PFEESA*	Not detected	0.0022		ug/L	2.16	113507-82-7	
PFMBA*	Not detected	0.0022		ug/L	2.16	863090-89-5	
PFMPA*	Not detected	0.0022		ug/L	2.16	377-73-1	
NMeFOSAM*	Not detected	0.0022		ug/L	2.16	31506-32-8	
NMeFOSE*	Not detected	0.0043		ug/L	2.16	24448-09-7	
NEtFOSAM*	Not detected	0.0022		ug/L	2.16	4151-50-2	
NEtFOSE*	Not detected	0.0043		ug/L	2.16	1691-99-2	
PFDoS*	Not detected	0.0043		ug/L	2.16	79780-39-5	



Analytical Laboratory Report

Lab Sample ID: S74399.23

Sample Tag: Methanol Blank

Collected Date/Time: 05/09/2025 00:01

Matrix: Methanol

COC Reference: 178254

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40mL Glass	MeOH	Yes	3.2	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	10.0/10	SW5035A	05/12/25 16:33	ACK	

Organics

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 18:07, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	50	60-29-7	
Acetone	Not detected	1,000		ug/kg	50	67-64-1	
Methyl iodide	Not detected	100		ug/kg	50	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	50	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	50	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	50	107-13-1	
2-Butanone (MEK)	Not detected	750		ug/kg	50	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	50	75-71-8	
Chloromethane	Not detected	300		ug/kg	50	74-87-3	
Vinyl chloride	Not detected	50		ug/kg	50	75-01-4	
Bromomethane	Not detected	200		ug/kg	50	74-83-9	
Chloroethane	Not detected	300		ug/kg	50	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	50	75-69-4	
1,1-Dichloroethene	Not detected	50		ug/kg	50	75-35-4	
Methylene chloride	Not detected	100		ug/kg	50	75-09-2	
trans-1,2-Dichloroethene	Not detected	50		ug/kg	50	156-60-5	
1,1-Dichloroethane	Not detected	50		ug/kg	50	75-34-3	
cis-1,2-Dichloroethene	Not detected	50		ug/kg	50	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	50	109-99-9	
Chloroform	Not detected	50		ug/kg	50	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	50	74-97-5	
1,1,1-Trichloroethane	Not detected	50		ug/kg	50	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	50	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	50	591-78-6	
Carbon tetrachloride	Not detected	50		ug/kg	50	56-23-5	
Benzene	Not detected	50		ug/kg	50	71-43-2	
1,2-Dichloroethane	Not detected	50		ug/kg	50	107-06-2	
Trichloroethene	Not detected	50		ug/kg	50	79-01-6	
1,2-Dichloropropane	Not detected	50		ug/kg	50	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	50	75-27-4	
Dibromomethane	Not detected	300		ug/kg	50	74-95-3	
cis-1,3-Dichloropropene	Not detected	50		ug/kg	50	10061-01-5	
Toluene	Not detected	50		ug/kg	50	108-88-3	
trans-1,3-Dichloropropene	Not detected	50		ug/kg	50	10061-02-6	
1,1,2-Trichloroethane	Not detected	50		ug/kg	50	79-00-5	
Tetrachloroethene	Not detected	50		ug/kg	50	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	50		ug/kg	50	110-57-6	



Analytical Laboratory Report

Lab Sample ID: S74399.23 (continued)

Sample Tag: Methanol Blank

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/12/25 18:07, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	100		ug/kg	50	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	50	106-93-4	M
Chlorobenzene	Not detected	50		ug/kg	50	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	50	630-20-6	
Ethylbenzene	Not detected	50		ug/kg	50	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	50		
o-Xylene	Not detected	50		ug/kg	50	95-47-6	
Styrene	Not detected	50		ug/kg	50	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	50	98-82-8	
Bromoform	Not detected	100		ug/kg	50	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	50		ug/kg	50	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	50	96-18-4	
n-Propylbenzene	Not detected	50		ug/kg	50	103-65-1	
Bromobenzene	Not detected	100		ug/kg	50	108-86-1	
1,3,5-Trimethylbenzene	Not detected	50		ug/kg	50	108-67-8	
tert-Butylbenzene	Not detected	50		ug/kg	50	98-06-6	
1,2,4-Trimethylbenzene	Not detected	50		ug/kg	50	95-63-6	
sec-Butylbenzene	Not detected	50		ug/kg	50	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	50	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	50	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	50	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	50	95-50-1	
1,2,3-Trimethylbenzene	Not detected	50		ug/kg	50	526-73-8	
n-Butylbenzene	Not detected	50		ug/kg	50	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	50	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	50	96-12-8	
1,2,4-Trichlorobenzene	Not detected	330		ug/kg	50	120-82-1	
1,2,3-Trichlorobenzene	Not detected	330		ug/kg	50	87-61-6	
Naphthalene	Not detected	300		ug/kg	50	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	50	91-57-6	

M-Result reported to MDL not RDL

Merit Laboratories Login Checklist

Lab Set ID:S74399

Client:ASTI (ASTI Environmental)

Project:A24-1988.01 2755, and 2990 Tooley Rd, and 0 Bowen Rd.

Submitted:05/12/2025 13:40 Login User: MMC

Attention: Jeremy Efros

Address: ASTI Environmental
10448 Citation Drive, Suite 100
Brighton, MI 48116

Phone: 810-360-9310

FAX:

Email:jefros@asti-env.com

Selection	Description	Note
Sample Receiving		
01. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Samples are received at 4C +/- 2C	Thermometer # IR 3.2
02. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Received on ice/ cooling process begun	
03. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Samples shipped	
04. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Samples left in 24 hr. drop box	
05. <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody		
06. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	COC adequately filled out	
07. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	COC signed and relinquished to the lab	
08. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Sample tag on bottles match COC	
09. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Subcontracting needed? Subcontracted to:	
Preservation		
10. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Do sample have correct chemical preservation	
11. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Completed pH checks on preserved samples? (no VOAs)	
12. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions		
13. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	All bottles intact	
14. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Appropriate analytical bottles are used	
15. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Merit bottles used	
16. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Sufficient sample volume received	
17. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Samples require laboratory filtration	
18. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Samples submitted within holding time	
19. <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories Bottle Preservation Check

Lab Set ID: S74399 Submitted: 05/12/2025 13:40

Client: ASTI (ASTI Environmental)

Project: A24-1988.01 2755, and 2990 Tooley Rd, and 0 Bowen Rd.

Initial Preservation Check: 05/12/2025 14:56 MMC

Preservation Recheck (E200.8): N/A

Attention: Jeremy Efros

Address: ASTI Environmental
10448 Citation Drive, Suite 100
Brighton, MI 48116

Phone: 810-360-9310

FAX:

Email: jefros@asti-env.com

Sample ID	Bottle / Preservation	pH (Orig)	Add ml	pH (New)	Notes
S74399.08	125mL Plastic HNO3	<2			
S74399.10	125mL Plastic HNO3	<2			
S74399.11	125mL Plastic HNO3	<2			
S74399.17	125mL Plastic HNO3	<2			
S74399.18	125mL Plastic HNO3	<2			
S74399.19	125mL Plastic HNO3	<2			
S74399.22	125mL Plastic HNO3	<2			



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C.O.C. PAGE # 1 OF 2

178350

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME Jeremy Efros / Brady Metzger
COMPANY ASTI Environmental
ADDRESS 10448 Citation Dr.
CITY Brighton STATE MI ZIP CODE 48116
PHONE NO. 810-360-9316 CELL NO. 810-599-5464 P.O. NO.
MAIL ADDRESS efros@asti-env.com bmetzger@asti-env.com QUOTE NO.
PROJECT NO./NAME A24-1988.01 2755, and 2990 Tooley Rd, and 0 Bowen Rd.

CONTACT NAME X SAME
COMPANY
ADDRESS
CITY
STATE
ZIP CODE
PHONE NO.
E-MAIL ADDRESS
ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

JRNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER
ELIVERABLES REQUIRED ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER
MATRIX W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
CODE: SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR WS=WASTE

Certifications
☐ OHIO VAP ☐ Drinking Water
☐ DoD ☐ NPDES
Project Locations
☐ Detroit ☐ New York
☐ Other
Special Instructions

MERIT LAB NO. <small>FOR LAB USE ONLY</small>	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives										VOCs	PNA's	MI 10 Metals	PFAS	PCBs	Arsenic	Lead	Cadm	Merc	Sele	<input type="checkbox"/> Other _____ Special Instructions
	DATE	TIME				NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER														
74399.01	5/8/25	0944	SB-1 (4-4.5)	S	2	1										X	X	X								
.02		0957	SB-1 (14-15)																							
.03		1025	SB-2 (2-2.5)																							
.04		1040	SB-2 (13-14)																							
.05		1100	SB-3 (3.5-4)		1															X					lead only	
.06		1200	SB-4 (3.5-4)		1														X						lead only	
.07		1240	SB-5 (4-5')	↓	↓	↓										↓	↓	↓								
.08	5/9/25	1335	MW-7	GW	5	4	1										↓		X	X	X	X	X	X		
.09		1240	MW-8		4	4												X								
.10		1120	MW-9		5	4	1									X			X	X	X	X	X			
.11		1055	MW-10	↓	↓	↓	↓											↓	↓	↓	↓	↓	↓			
.12	↓	0945	SB-11 (2.5-3')	S	2	1										X	X	X								

RELINQUISHED BY: Brady Metzger ☒ Sampler
SIGNATURE/ORGANIZATION ASTI Cold Storage DATE 5/9/25 TIME 1730
RECEIVED BY: ASTI Cold Storage DATE 5/9/25 TIME 1730
RELINQUISHED BY: ASTI Cold Storage DATE 5/12/25 TIME 850
SIGNATURE/ORGANIZATION ASTI Cold Storage DATE 5/12/25 TIME 850

RELINQUISHED BY: Brady Metzger
SIGNATURE/ORGANIZATION ASTI Cold Storage DATE 5/12/25 TIME 1341
RECEIVED BY: M. Chilcote DATE 5/12/25 TIME 1340
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
NOTES: TEMP. ON ARRIVAL 3.2
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS



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C.O.C. PAGE # 2 OF 2

178254

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME		Jeremy Efcros / Brady Metzger	
COMPANY		ASTI Environmental	
ADDRESS		10448 Citation Dr.	
CITY	STATE	ZIP CODE	
Brighton	MI	48116	
PHONE NO.	CELL NO.	P.O. NO.	
810-360-9310			
E-MAIL ADDRESS		QUOTE NO.	
iefcros@asti-env.com bmetzger@asti-env.com			

CONTACT NAME		X SAME	
COMPANY			
ADDRESS			
CITY	STATE	ZIP CODE	
PHONE NO.	E-MAIL ADDRESS		

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME	SAMPLER(S) - PLEASE PRINT/SIGN NAME
24-1988-01 2755 and 2990 Tooley Rd, and 0 Bowen Rd	Bm Bm
TURNAROUND TIME REQUIRED	<input type="checkbox"/> 1 DAY <input type="checkbox"/> 2 DAYS <input type="checkbox"/> 3 DAYS <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> OTHER
DELIVERABLES REQUIRED	<input type="checkbox"/> LEVEL II <input type="checkbox"/> LEVEL III <input type="checkbox"/> LEVEL IV <input type="checkbox"/> EDD <input type="checkbox"/> OTHER

MATRIX W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
CODE: SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIFE A=AIR WS=WASTE

Containers & Preservatives

MERIT LAB NO. <small>FOR LAB USE ONLY</small>	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	VOCs	PNA	MI 10 Metals	PFAS	Arsenic	Lead	Cadmium	Mercury	Selenium	Certifications <input type="checkbox"/> OHIO VAP <input type="checkbox"/> Drinking Water <input type="checkbox"/> DoD <input type="checkbox"/> NPDES Project Locations <input type="checkbox"/> Detroit <input type="checkbox"/> New York <input type="checkbox"/> Other Special Instructions
	DATE	TIME																				
74399.13	5/9/25	1005	SB-12 (3-3.5)	S	2	1							X	X	X							
.14		1026	SB-12 (1-2)																			
.15		1013	SB-13 (3.5-4)																			
.16		0930	SB-14 (3.5-4)																			
.17		0945	SB-14-GW	GW	4	2	1															
.18		1302	SB-4-GW		1													X				
.19		1435	MW-15		5	4	1							X		X	X	X	X	X		
.20	5/8/25	-	DUP-1S	S	1	1												X				
.21		-	DUP-2S		2	1					1		X	X	X							
.22	5/9/25	-	DUP-1-GW	GW	5	4	1							X		X	X	X	X	X		
.23		-	Methanol Blank		1						1		X									

RELINQUISHED BY:	Signature	DATE	TIME
SIGNATURE/ORGANIZATION	Bm	5/9/25	1730
RECEIVED BY:		DATE	TIME
SIGNATURE/ORGANIZATION	ASTI Cold Storage	5/9/25	1730
RELINQUISHED BY:		DATE	TIME
SIGNATURE/ORGANIZATION	ASTI Cold Storage	5/12/25	850
RECEIVED BY:		DATE	TIME
SIGNATURE/ORGANIZATION	Bm	5/12/25	850

RELINQUISHED BY:	Signature	DATE	TIME
SIGNATURE/ORGANIZATION	Bm	5/12/25	1340
RECEIVED BY:		DATE	TIME
SIGNATURE/ORGANIZATION	M Calco	5/12/25	1340
SEAL NO.	SEAL INTACT	INITIALS	NOTES:
	YES <input type="checkbox"/> NO <input type="checkbox"/>		TEMP. ON ARRIVAL
SEAL NO.	SEAL INTACT	INITIALS	
	YES <input type="checkbox"/> NO <input type="checkbox"/>		3.2



Analytical Laboratory Report

Supplemental Report

Report ID: S74503.01(03)

Generated on 06/05/2025

Replaces report S74503.01(02) generated on 06/03/2025

Report to

Attention: Jeremy Efros

ASTI Environmental

10448 Citation Drive

Suite 100

Brighton, MI 48116

Phone: 810-360-9310 FAX:

Email: jefros@asti-env.com

Additional Contacts: Brad Buswell, Brady Metzger

Report produced by

Merit Laboratories, Inc.

2680 East Lansing Drive

East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:

John Lavery (johnlavery@meritlabs.com)

Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S74503.01-S74503.08

Project: A24-1988.01 2755 and 2990 Tooley Rd. and 0 Bowen Rd

Collected Date(s): 05/12/2025 - 05/13/2025

Submitted Date/Time: 05/14/2025 11:10

Sampled by: Brady Metzger

P.O. #:

Table of Contents

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Maya Murshak

Technical Director



General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.

Methods may be modified for improved performance.

Results reported on a dry weight basis where applicable.

'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).

When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.

40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile, and 2-chloroethylvinyl ether need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.

QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.

Starred (*) analytes are not NY NELAP accredited.

Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)

PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."

Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.

Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

All accreditations/certifications held by this laboratory are listed on page 3. Not all accreditations/certifications are applicable to this report.

For a specific list of accredited analytes, please feel free to contact the laboratory or visit <https://www.meritlabs.com/certifications>.

Report Narrative

Chromium VI added to sample .06 per client request

**Laboratory Accreditations (For Reference Only)**

Authority	Accreditation ID
Michigan DEQ	#9956
DOD ELAP & ISO/IEC 17025:2017	#69699 PJLA Testing
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
I	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
o	Associated EIS outside of control limits
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
q	Qualifier ion ratio outside of control limits
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched



Method Summary

Method	Version
SM2540B	Standard Method 2540 B 2020
SW3050B	SW 846 Method 3050B Revision 2 December 1996
SW3546	SW 846 Method 3546 Revision 0 February 2007
SW5035A	SW 846 Method 5035A Revision 1 July 2002
SW5035A/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5035A Revision 1 July 2002
SW6020A	SW 846 Method 6020A Revision 1 February 2007
SW7196A	SW 846 Method 7196A Revision 1 July 1992/SW 846 Method 3060A Revision 1 December 1996
SW7471B	SW 846 Method 7471B Revision 2 February 2007
SW8270D	SW 846 Method 8270D Revision 4 February 2007



Analytical Laboratory Report

Supplemental Report

Sample Summary (8 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S74503.01	DU-1 (0-1')	Soil	05/12/25 15:20
S74503.02	DU-2 (0-1')	Soil	05/13/25 13:30
S74503.03	DU-3 (0-1')	Soil	05/12/25 11:40
S74503.04	T-1	Soil	05/12/25 00:01
S74503.05	T-2	Soil	05/12/25 00:01
S74503.06	Trench-1	Soil	05/13/25 10:30
S74503.07	Trench-2	Soil	05/13/25 10:40
S74503.08	Methanol Blank	Methanol	05/13/25 00:01



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S74503.01

Sample Tag: DU-1 (0-1')

Collected Date/Time: 05/12/2025 15:20

Matrix: Soil

COC Reference: 178257

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Plastic Bag	None	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/19/25 10:30	JRH	
PNA Extraction*	Completed	SW3546	05/19/25 14:00	TAW	
Mercury Digestion	Completed	SW7471B	05/20/25 10:45	CTV	

Metals**Method: SW6020A, Run Date: 05/19/25 12:16, Analyst: JRH**

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	3.95	0.20		mg/kg	269	7440-38-2	
Cadmium	Not detected	0.20		mg/kg	269	7440-43-9	
Lead	9.43	0.30		mg/kg	269	7439-92-1	
Selenium	Not detected	0.40		mg/kg	269	7782-49-2	

Method: SW7471B, Run Date: 05/20/25 13:16, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	58	7439-97-6	

Organics - Semi-Volatiles**Polynuclear Aromatics, Method: SW8270D, Run Date: 05/21/25 15:57, Analyst: PL**

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Other / Misc.**Method: , Run Date: 05/18/25 20:00, Analyst: SRP**

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Misc. Special Project*	Completed				1		i

i-Incremental sampling



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S74503.02

Sample Tag: DU-2 (0-1')

Collected Date/Time: 05/13/2025 13:30

Matrix: Soil

COC Reference: 178257

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Plastic Bag	None	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/19/25 10:30	JRH	
PNA Extraction*	Completed	SW3546	05/19/25 14:00	TAW	
Mercury Digestion	Completed	SW7471B	05/20/25 10:45	CTV	

Metals**Method: SW6020A, Run Date: 05/19/25 12:18, Analyst: JRH**

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	1.96	0.20		mg/kg	235	7440-38-2	
Cadmium	Not detected	0.20		mg/kg	235	7440-43-9	
Lead	5.79	0.30		mg/kg	235	7439-92-1	
Selenium	Not detected	0.40		mg/kg	235	7782-49-2	

Method: SW7471B, Run Date: 05/20/25 13:26, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	53	7439-97-6	

Organics - Semi-Volatiles**Polynuclear Aromatics, Method: SW8270D, Run Date: 05/21/25 16:14, Analyst: PL**

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Other / Misc.**Method: , Run Date: 05/18/25 20:00, Analyst: SRP**

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Misc. Special Project*	Completed				1		i

i-Incremental sampling



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S74503.03

Sample Tag: DU-3 (0-1')

Collected Date/Time: 05/12/2025 11:40

Matrix: Soil

COC Reference: 178257

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Plastic Bag	None	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/19/25 10:30	JRH	
PNA Extraction*	Completed	SW3546	05/19/25 14:00	TAW	
Mercury Digestion	Completed	SW7471B	05/20/25 10:45	CTV	

Metals**Method: SW6020A, Run Date: 05/19/25 12:20, Analyst: JRH**

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	3.17	0.20		mg/kg	278	7440-38-2	
Cadmium	Not detected	0.20		mg/kg	278	7440-43-9	
Lead	8.18	0.30		mg/kg	278	7439-92-1	
Selenium	Not detected	0.40		mg/kg	278	7782-49-2	

Method: SW7471B, Run Date: 05/20/25 13:29, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	58	7439-97-6	

Organics - Semi-Volatiles**Polynuclear Aromatics, Method: SW8270D, Run Date: 05/21/25 16:31, Analyst: PL**

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Other / Misc.**Method: , Run Date: 05/18/25 20:00, Analyst: SRP**

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Misc. Special Project*	Completed				1		i

i-Incremental sampling



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S74503.04

Sample Tag: T-1

Collected Date/Time: 05/12/2025 00:01

Matrix: Soil

COC Reference: 178257

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Plastic Bag	None	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/19/25 10:30	JRH	
PNA Extraction*	Completed	SW3546	05/19/25 14:00	TAW	
Mercury Digestion	Completed	SW7471B	05/20/25 10:45	CTV	

Metals**Method: SW6020A, Run Date: 05/19/25 12:22, Analyst: JRH**

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	3.05	0.20		mg/kg	248	7440-38-2	
Cadmium	Not detected	0.20		mg/kg	248	7440-43-9	
Lead	9.36	0.30		mg/kg	248	7439-92-1	
Selenium	Not detected	0.40		mg/kg	248	7782-49-2	

Method: SW7471B, Run Date: 05/20/25 13:33, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	62	7439-97-6	

Organics - Semi-Volatiles**Polynuclear Aromatics, Method: SW8270D, Run Date: 05/21/25 16:48, Analyst: PL**

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Other / Misc.**Method: , Run Date: 05/18/25 20:00, Analyst: SRP**

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Misc. Special Project*	Completed				1		i

i-Incremental sampling



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S74503.05

Sample Tag: T-2

Collected Date/Time: 05/12/2025 00:01

Matrix: Soil

COC Reference: 178257

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Plastic Bag	None	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/19/25 10:30	JRH	
PNA Extraction*	Completed	SW3546	05/19/25 14:00	TAW	
Mercury Digestion	Completed	SW7471B	05/20/25 10:45	CTV	

Metals

Method: SW6020A, Run Date: 05/19/25 12:23, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	3.18	0.20		mg/kg	234	7440-38-2	
Cadmium	Not detected	0.20		mg/kg	234	7440-43-9	
Lead	8.69	0.30		mg/kg	234	7439-92-1	
Selenium	Not detected	0.40		mg/kg	234	7782-49-2	

Method: SW7471B, Run Date: 05/20/25 13:36, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	60	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 05/21/25 17:05, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	

Other / Misc.

Method: , Run Date: 05/18/25 20:00, Analyst: SRP

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Misc. Special Project*	Completed				1		i

i-Incremental sampling



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S74503.06

Sample Tag: Trench-1

Collected Date/Time: 05/13/2025 10:30

Matrix: Soil

COC Reference: 178257

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.6	IR
1	40mL Glass	None	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/16/25 09:20	JRH	
PNA Extraction*	Completed	SW3546	06/02/25 16:45	TAW	F
Sample wt. (g) / Methanol (ml)*	11.106/11	SW5035A	05/14/25 17:19	ACK	
Mercury Digestion	Completed	SW7471B	05/16/25 12:04	CTV	

Inorganics

Method: SM2540B, Run Date: 05/16/25 13:49, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	83	1		%	1		

Method: SW7196A, Run Date: 06/04/25 13:35, Analyst: JKB

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Chromium VI	Not detected	1		mg/kg	100	18540-29-9	

Metals

Method: SW6020A, Run Date: 05/16/25 12:38, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	6.95	0.20		mg/kg	258	7440-38-2	
Barium	73.3	1.0		mg/kg	258	7440-39-3	
Cadmium	Not detected	0.20		mg/kg	258	7440-43-9	
Chromium	21.3	0.50		mg/kg	258	7440-47-3	
Copper	18.2	0.50		mg/kg	258	7440-50-8	
Lead	8.20	0.30		mg/kg	258	7439-92-1	
Selenium	0.562	0.40		mg/kg	258	7782-49-2	
Silver	Not detected	0.20		mg/kg	258	7440-22-4	
Zinc	48.6	0.50		mg/kg	258	7440-66-6	

Method: SW7471B, Run Date: 05/16/25 15:01, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	69	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 06/03/25 16:33, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	G
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	G
Anthracene	Not detected	300		ug/kg	10	120-12-7	G
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	G
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	G

F-Analysis run outside of holding time

G-Estimated result due to extraction run outside of holding time



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S74503.06 (continued)

Sample Tag: Trench-1

Polynuclear Aromatics, Method: SW8270D, Run Date: 06/03/25 16:33, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	G
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	G
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	G
Chrysene	Not detected	300		ug/kg	10	218-01-9	G
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	G
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	G
Fluorene	Not detected	300		ug/kg	10	86-73-7	G
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	G
Naphthalene	Not detected	300		ug/kg	10	91-20-3	G
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	G
Pyrene	Not detected	300		ug/kg	10	129-00-0	G
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	G
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	G

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/15/25 14:38, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	69.9	60-29-7	
Acetone	Not detected	1,000		ug/kg	69.9	67-64-1	
Methyl iodide	Not detected	100		ug/kg	69.9	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	69.9	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	69.9	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	69.9	107-13-1	
2-Butanone (MEK)	Not detected	1,000		ug/kg	69.9	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	69.9	75-71-8	
Chloromethane	Not detected	300		ug/kg	69.9	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	69.9	75-01-4	
Bromomethane	Not detected	300		ug/kg	69.9	74-83-9	
Chloroethane	Not detected	300		ug/kg	69.9	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	69.9	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	69.9	75-35-4	
Methylene chloride	Not detected	100		ug/kg	69.9	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	69.9	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	69.9	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	69.9	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	69.9	109-99-9	
Chloroform	Not detected	70		ug/kg	69.9	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	69.9	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	69.9	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	69.9	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	69.9	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	69.9	56-23-5	
Benzene	Not detected	70		ug/kg	69.9	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	69.9	107-06-2	
Trichloroethene	Not detected	70		ug/kg	69.9	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	69.9	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	69.9	75-27-4	
Dibromomethane	Not detected	300		ug/kg	69.9	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	69.9	10061-01-5	

G-Estimated result due to extraction run outside of holding time



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S74503.06 (continued)

Sample Tag: Trench-1

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/15/25 14:38, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Toluene	Not detected	70		ug/kg	69.9	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	69.9	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	69.9	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	69.9	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	69.9	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	69.9	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	69.9	106-93-4	M
Chlorobenzene	Not detected	70		ug/kg	69.9	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	69.9	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	69.9	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	69.9		
o-Xylene	Not detected	70		ug/kg	69.9	95-47-6	
Styrene	Not detected	70		ug/kg	69.9	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	69.9	98-82-8	
Bromoform	Not detected	100		ug/kg	69.9	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	69.9	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	69.9	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	69.9	103-65-1	
Bromobenzene	Not detected	100		ug/kg	69.9	108-86-1	
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	69.9	108-67-8	
tert-Butylbenzene	Not detected	70		ug/kg	69.9	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	69.9	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	69.9	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	69.9	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	69.9	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	69.9	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	69.9	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	69.9	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	69.9	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	69.9	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	69.9	96-12-8	
1,2,4-Trichlorobenzene	Not detected	460		ug/kg	69.9	120-82-1	
1,2,3-Trichlorobenzene	Not detected	460		ug/kg	69.9	87-61-6	
Naphthalene	Not detected	300		ug/kg	69.9	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	69.9	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S74503.07

Sample Tag: Trench-2

Collected Date/Time: 05/13/2025 10:40

Matrix: Soil

COC Reference: 178257

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	4oz Glass	None	Yes	4.6	IR
1	40mL Glass	None	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	05/16/25 09:20	JRH	F
PNA Extraction*	Completed	SW3546	06/02/25 16:45	TAW	
Sample wt. (g) / Methanol (ml)*	11.409/11	SW5035A	05/14/25 17:19	ACK	
Mercury Digestion	Completed	SW7471B	05/16/25 12:04	CTV	

Inorganics

Method: SM2540B, Run Date: 05/16/25 13:49, Analyst: MAM

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	87	1		%	1		

Metals

Method: SW6020A, Run Date: 05/16/25 12:40, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Arsenic	6.39	0.20		mg/kg	238	7440-38-2	
Barium	24.7	1.0		mg/kg	238	7440-39-3	
Cadmium	Not detected	0.20		mg/kg	238	7440-43-9	
Chromium	8.42	0.50		mg/kg	238	7440-47-3	
Copper	8.88	0.50		mg/kg	238	7440-50-8	
Lead	4.65	0.30		mg/kg	238	7439-92-1	
Selenium	Not detected	0.40		mg/kg	238	7782-49-2	
Silver	Not detected	0.20		mg/kg	238	7440-22-4	
Zinc	29.3	0.50		mg/kg	238	7440-66-6	

Method: SW7471B, Run Date: 05/16/25 15:04, Analyst: CTV

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	64	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 06/03/25 16:50, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	G
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	G
Anthracene	Not detected	300		ug/kg	10	120-12-7	G
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	G
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	G
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	G
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	G
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	G
Chrysene	Not detected	300		ug/kg	10	218-01-9	G

F-Analysis run outside of holding time

G-Estimated result due to extraction run outside of holding time



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S74503.07 (continued)

Sample Tag: Trench-2

Polynuclear Aromatics, Method: SW8270D, Run Date: 06/03/25 16:50, Analyst: PL (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	G
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	G
Fluorene	Not detected	300		ug/kg	10	86-73-7	G
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	G
Naphthalene	Not detected	300		ug/kg	10	91-20-3	G
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	G
Pyrene	Not detected	300		ug/kg	10	129-00-0	G
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	G
1-Methylnaphthalene	Not detected	300		ug/kg	10	90-12-0	G

Organics - Volatiles**Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/15/25 15:02, Analyst: KAG**

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	62.9	60-29-7	
Acetone	Not detected	1,000		ug/kg	62.9	67-64-1	
Methyl iodide	Not detected	100		ug/kg	62.9	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	62.9	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	62.9	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	62.9	107-13-1	
2-Butanone (MEK)	Not detected	940		ug/kg	62.9	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	62.9	75-71-8	
Chloromethane	Not detected	300		ug/kg	62.9	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	62.9	75-01-4	
Bromomethane	Not detected	300		ug/kg	62.9	74-83-9	
Chloroethane	Not detected	300		ug/kg	62.9	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	62.9	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	62.9	75-35-4	
Methylene chloride	Not detected	100		ug/kg	62.9	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	62.9	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	62.9	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	62.9	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	62.9	109-99-9	
Chloroform	Not detected	60		ug/kg	62.9	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	62.9	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	62.9	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	62.9	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	62.9	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	62.9	56-23-5	
Benzene	Not detected	60		ug/kg	62.9	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	62.9	107-06-2	
Trichloroethene	Not detected	60		ug/kg	62.9	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	62.9	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	62.9	75-27-4	
Dibromomethane	Not detected	300		ug/kg	62.9	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	62.9	10061-01-5	
Toluene	Not detected	60		ug/kg	62.9	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	62.9	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	62.9	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	62.9	127-18-4	

G-Estimated result due to extraction run outside of holding time



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S74503.07 (continued)

Sample Tag: Trench-2

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/15/25 15:02, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	62.9	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	62.9	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	62.9	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	62.9	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	62.9	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	62.9	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	62.9		
o-Xylene	Not detected	60		ug/kg	62.9	95-47-6	
Styrene	Not detected	60		ug/kg	62.9	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	62.9	98-82-8	
Bromoform	Not detected	100		ug/kg	62.9	75-25-2	
1,1,1,2-Tetrachloroethane	Not detected	60		ug/kg	62.9	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	62.9	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	62.9	103-65-1	
Bromobenzene	Not detected	100		ug/kg	62.9	108-86-1	
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	62.9	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	62.9	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	62.9	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	62.9	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	62.9	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	62.9	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	62.9	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	62.9	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	62.9	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	62.9	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	62.9	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	62.9	96-12-8	
1,2,4-Trichlorobenzene	Not detected	420		ug/kg	62.9	120-82-1	
1,2,3-Trichlorobenzene	Not detected	420		ug/kg	62.9	87-61-6	
Naphthalene	Not detected	300		ug/kg	62.9	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	62.9	91-57-6	

M-Result reported to MDL not RDL



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S74503.08

Sample Tag: Methanol Blank

Collected Date/Time: 05/13/2025 00:01

Matrix: Methanol

COC Reference: 178257

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40mL Glass	None	Yes	4.6	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Sample wt. (g) / Methanol (ml)*	10.0/10	SW5035A	05/14/25 17:19	ACK	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/15/25 14:14, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	50	60-29-7	
Acetone	Not detected	1,000		ug/kg	50	67-64-1	
Methyl iodide	Not detected	100		ug/kg	50	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	50	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	50	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	50	107-13-1	
2-Butanone (MEK)	Not detected	750		ug/kg	50	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	50	75-71-8	
Chloromethane	Not detected	300		ug/kg	50	74-87-3	
Vinyl chloride	Not detected	50		ug/kg	50	75-01-4	
Bromomethane	Not detected	200		ug/kg	50	74-83-9	
Chloroethane	Not detected	300		ug/kg	50	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	50	75-69-4	
1,1-Dichloroethene	Not detected	50		ug/kg	50	75-35-4	
Methylene chloride	Not detected	100		ug/kg	50	75-09-2	
trans-1,2-Dichloroethene	Not detected	50		ug/kg	50	156-60-5	
1,1-Dichloroethane	Not detected	50		ug/kg	50	75-34-3	
cis-1,2-Dichloroethene	Not detected	50		ug/kg	50	156-59-2	
Tetrahydrofuran	Not detected	1,000		ug/kg	50	109-99-9	
Chloroform	Not detected	50		ug/kg	50	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	50	74-97-5	
1,1,1-Trichloroethane	Not detected	50		ug/kg	50	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	50	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	50	591-78-6	
Carbon tetrachloride	Not detected	50		ug/kg	50	56-23-5	
Benzene	Not detected	50		ug/kg	50	71-43-2	
1,2-Dichloroethane	Not detected	50		ug/kg	50	107-06-2	
Trichloroethene	Not detected	50		ug/kg	50	79-01-6	
1,2-Dichloropropane	Not detected	50		ug/kg	50	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	50	75-27-4	
Dibromomethane	Not detected	300		ug/kg	50	74-95-3	
cis-1,3-Dichloropropene	Not detected	50		ug/kg	50	10061-01-5	
Toluene	Not detected	50		ug/kg	50	108-88-3	
trans-1,3-Dichloropropene	Not detected	50		ug/kg	50	10061-02-6	
1,1,2-Trichloroethane	Not detected	50		ug/kg	50	79-00-5	
Tetrachloroethene	Not detected	50		ug/kg	50	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	50		ug/kg	50	110-57-6	



Analytical Laboratory Report

Supplemental Report

Lab Sample ID: S74503.08 (continued)

Sample Tag: Methanol Blank

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 05/15/25 14:14, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Dibromochloromethane	Not detected	100		ug/kg	50	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	50	106-93-4	M
Chlorobenzene	Not detected	50		ug/kg	50	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	50	630-20-6	
Ethylbenzene	Not detected	50		ug/kg	50	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	50		
o-Xylene	Not detected	50		ug/kg	50	95-47-6	
Styrene	Not detected	50		ug/kg	50	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	50	98-82-8	
Bromoform	Not detected	100		ug/kg	50	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	50		ug/kg	50	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	50	96-18-4	
n-Propylbenzene	Not detected	50		ug/kg	50	103-65-1	
Bromobenzene	Not detected	100		ug/kg	50	108-86-1	
1,3,5-Trimethylbenzene	Not detected	50		ug/kg	50	108-67-8	
tert-Butylbenzene	Not detected	50		ug/kg	50	98-06-6	
1,2,4-Trimethylbenzene	Not detected	50		ug/kg	50	95-63-6	
sec-Butylbenzene	Not detected	50		ug/kg	50	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	50	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	50	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	50	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	50	95-50-1	
1,2,3-Trimethylbenzene	Not detected	50		ug/kg	50	526-73-8	
n-Butylbenzene	Not detected	50		ug/kg	50	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	50	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	50	96-12-8	
1,2,4-Trichlorobenzene	Not detected	330		ug/kg	50	120-82-1	
1,2,3-Trichlorobenzene	Not detected	330		ug/kg	50	87-61-6	
Naphthalene	Not detected	300		ug/kg	50	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	50	91-57-6	

M-Result reported to MDL not RDL

Merit Laboratories Login Checklist

Lab Set ID: S74503

Client: ASTI (ASTI Environmental)

Project: A24-1988.01 2755 and 2990 Tooley Rd. and 0 Bowen Rd

Submitted: 05/14/2025 11:10 Login User: MMC

Attention: Jeremy Efros

Address: ASTI Environmental
10448 Citation Drive
Suite 100
Brighton, MI 48116

Phone: 810-360-9310

FAX:

Email: jefros@asti-env.com

Selection	Description	Note
Sample Receiving		
01. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Samples are received at 4C +/- 2C Thermometer #	IR 4.6
02. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Received on ice/ cooling process begun	
03. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Samples shipped	
04. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Samples left in 24 hr. drop box	
05. <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody		
06. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	COC adequately filled out	
07. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	COC signed and relinquished to the lab	
08. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Sample tag on bottles match COC	
09. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Subcontracting needed? Subcontracted to:	
Preservation		
10. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Do sample have correct chemical preservation	
11. <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Completed pH checks on preserved samples? (no VOAs)	
12. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions		
13. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	All bottles intact	
14. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Appropriate analytical bottles are used	
15. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Merit bottles used	
16. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Sufficient sample volume received	
17. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Samples require laboratory filtration	
18. <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Samples submitted within holding time	
19. <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Do water VOC, TOX, DO or Alkalinity bottles contain	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____



2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

178257

REPORT TO

CHAIN OF CUSTODY RECORD

INVOICE TO

CONTACT NAME Jeremy Effros / Brady Metzger
COMPANY ASTI Environmental
ADDRESS 10448 Citation Dr
CITY Brighton STATE MI ZIP CODE 48116
PHONE NO 810-360-9310 CELL NO 810-599-5464 P.O. NO.
E-MAIL ADDRESS jeffros@asti-env.com bmetzger@asti-env.com QUOTE NO.

CONTACT NAME SAME
COMPANY
ADDRESS
CITY STATE ZIP CODE
PHONE NO. E-MAIL ADDRESS

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME 24-1988-01 2755 and 2990 Tooley Rd. and 0 Bowen Rd SAMPLER(S) - PLEASE PRINT/SIGN NAME Brady Metzger
TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER
DELIVERABLES REQUIRED ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX W=WATER GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID
CODE: SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIFE A=AIR WS=WASTE

Containers & Preservatives

MERIT LAB NO. FOR LAB USE ONLY	COLLECTION		SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	NONE	HCl	HNO ₃	H ₂ SO ₄	NaOH	MeOH	OTHER	PNA's	arsenic	Cadmium	lead	mercury	selenium	VOC's	MI to metals	Certifications <input type="checkbox"/> OHIO VAP <input type="checkbox"/> Drinking Water <input type="checkbox"/> DoD <input type="checkbox"/> NPDDES Project Locations <input type="checkbox"/> Detroit <input type="checkbox"/> New York <input type="checkbox"/> Other Special Instructions
	DATE	TIME																			
74503.01	5/12/25	1520	DU-1 (0-1')	S	1	1							X	X	X	X	X	X			*ISM
.02	5/13/25	1330	DU-2 (0-1')																		
.03	5/12/25	1140	DU-3 (0-1')																		
.04		-	T-1																		
.05		-	T-2																		
.06	5/13/25	1030	Trench - 1		2						1								X	X	
.07		1040	Trench - 2																		
.08		-	methanol Blank		1																

RELINQUISHED BY: Brady Metzger ☒ Sampler DATE 5/13/25 TIME 1435
SIGNATURE/ORGANIZATION
RECEIVED BY: ASTI Cold Storage DATE 5/13/25 TIME 1435
SIGNATURE/ORGANIZATION
RELINQUISHED BY: ASTI Cold Storage DATE 5/14/25 TIME 728
SIGNATURE/ORGANIZATION
RECEIVED BY: ASTI Cold Storage DATE 5/14/25 TIME 725
SIGNATURE/ORGANIZATION

RELINQUISHED BY: R/S DATE 5/14/25 TIME 1110
SIGNATURE/ORGANIZATION
RECEIVED BY: M Chilcote DATE 5/14/25 TIME 1110
SIGNATURE/ORGANIZATION
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
NOTES: TEMP. ON ARRIVAL 4.6

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLER ACCEPTANCE POLICY ON REVERSE SIDE

ASTI ENVIRONMENTAL
*ENVIRONMENTAL INVESTIGATION, REMEDIATION, COMPLIANCE AND
RESTORATION PROJECTS THROUGHOUT THE GREAT LAKES SINCE 1985.*

OUR SERVICES INCLUDE:

- ASBESTOS, LEAD, MOLD, AND RADON ASSESSMENTS
- BROWNFIELD/GREYFIELD REDEVELOPMENT ASSISTANCE
- DEVELOPMENT INCENTIVES AND GRANT MANAGEMENT
- ECOLOGICAL ASSESSMENTS AND RESTORATION
- ENVIRONMENTAL ASSESSMENTS AND IMPACT STATEMENTS
- ENVIRONMENTAL OPPORTUNITIES ASSESSMENT
- GIS MAPPING
- HAZARD MITIGATION PLANNING
- MINING AND RECLAMATION ASSISTANCE
- REMEDIATION IMPLEMENTATION, OPERATION AND MAINTENANCE
- PHASE I ESA AND ENVIRONMENTAL DUE DILIGENCE ASSESSMENTS
- REGULATORY COMPLIANCE AND PERMITTING
- SOIL AND GROUNDWATER ASSESSMENTS
- SOIL AND GROUNDWATER REMEDIATION
- STORAGE TANK COMPLIANCE AND CLOSURE
- THREATENED AND ENDANGERED SPECIES SURVEYS
- WATERSHED AND STORMWATER MANAGEMENT PROGRAMS
- WETLAND DELINEATION, PERMITTING, MITIGATION AND BANKING

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Howell Township
Invoice and Check Registers
As of 6/30/2025

INVOICE REGISTER FOR HOWELL TOWNSHIP

Inv Ref #	Vendor	Invoice Date	Due Date	Invoice Amount	Amount Due	Status	Posted
00024614	LIVINGSTON COUNTY TREASURER	06/02/2025	06/02/2025	32.00	0.00	Paid	Y
00024618	LIVINGSTON COUNTY TREASURER	06/02/2025	06/02/2025	840.00	0.00	Paid	Y
00024619	GCT METER FUND	06/03/2025	06/15/2025	896.00	0.00	Paid	Y
00024594	BRIGHTON ANALYTICAL	05/20/2025	06/19/2025	30.00	0.00	Paid	Y
00024595	GENOA-OCEOLA SWATH	05/20/2025	06/19/2025	3,565.58	0.00	Paid	Y
00024597	FRANKLIN HOLWERDA CO.	04/30/2025	06/01/2025	63,750.00	0.00	Paid	Y
00024599	AT&T	05/27/2025	06/09/2025	128.04	0.00	Paid	Y
00024600	PRINTING SYSTEMS	05/23/2025	06/09/2025	493.65	0.00	Paid	Y
00024607	CONSUMERS ENERGY	05/27/2025	06/13/2025	24.23	0.00	Paid	Y
00024608	CONSUMERS ENERGY	05/27/2025	06/17/2025	145.19	0.00	Paid	Y
00024609	BIOTECH AGRONOMICS, INC	05/27/2025	06/17/2025	1,921.00	0.00	Paid	Y
00024615	GENOA TOWNSHIP DPW	06/02/2025	06/02/2025	30,920.92	0.00	Paid	Y
00024596	LIV CO MUNIC CLERKS ASSOC	05/21/2025	07/01/2025	100.00	0.00	Paid	Y
00024598	MUTUAL OF OMAHA INSURANCE COMPANY	05/16/2025	06/01/2025	219.00	0.00	Paid	Y
00024606	ABSOPURE	05/27/2025	06/09/2025	28.80	0.00	Paid	Y
00024610	CONSUMERS ENERGY	05/27/2025	06/17/2025	130.93	0.00	Paid	Y
00024611	SILVER LINING TIRE RECYCLING	05/27/2025	06/17/2025	616.50	0.00	Paid	Y
00024612	PERFECT MAINTENANCE	06/01/2025	06/17/2025	195.00	0.00	Paid	Y
00024613	THE GARBAGE MAN	05/30/2025	06/17/2025	1,692.01	0.00	Paid	Y
00024616	COMCAST	06/02/2025	06/02/2025	435.85	0.00	Paid	Y
00024617	MICRO WORKS COMPUTING, INC	06/02/2025	06/02/2025	120.00	0.00	Paid	Y
00024620	FAHEY SCHULTZ BURZYCH RHODES PLC	06/02/2025	07/02/2025	536.50	0.00	Paid	Y
00024621	FAHEY SCHULTZ BURZYCH RHODES PLC	06/02/2025	07/02/2025	57.00	0.00	Paid	Y
00024622	FAHEY SCHULTZ BURZYCH RHODES PLC	06/02/2025	07/02/2025	797.50	0.00	Paid	Y
00024623	FAHEY SCHULTZ BURZYCH RHODES PLC	06/02/2025	07/02/2025	3,792.00	0.00	Paid	Y
00024624	FAHEY SCHULTZ BURZYCH RHODES PLC	06/02/2025	07/02/2025	14,334.16	0.00	Paid	Y
00024625	FAHEY SCHULTZ BURZYCH RHODES PLC	06/02/2025	07/02/2025	291.00	0.00	Paid	Y
00024626	FAHEY SCHULTZ BURZYCH RHODES PLC	06/02/2025	07/02/2025	6,939.30	0.00	Paid	Y
00024627	SPRUNGTOWN OUTDOOR SERVICES	06/02/2025	07/02/2025	4,875.00	0.00	Paid	Y
00024628	FAHEY SCHULTZ BURZYCH RHODES PLC	05/01/2025	05/31/2025	1,538.50	0.00	Paid	Y
00024629	FAHEY SCHULTZ BURZYCH RHODES PLC	05/01/2025	05/31/2025	199.50	0.00	Paid	Y
00024630	FAHEY SCHULTZ BURZYCH RHODES PLC	05/01/2025	05/31/2025	72.00	0.00	Paid	Y
00024631	FAHEY SCHULTZ BURZYCH RHODES PLC	05/01/2025	05/31/2025	852.50	0.00	Paid	Y
00024636	DTE ENERGY	06/02/2025	07/10/2025	676.27	0.00	Paid	Y
00024637	ABSOPURE	05/31/2025	06/30/2025	12.00	0.00	Paid	Y
00024638	BRAMLETT HEATING & COOLING CO.	06/09/2025	06/30/2025	500.00	0.00	Paid	Y
00024639	GUARDIAN ALARM	06/09/2025	07/01/2025	1,021.44	0.00	Paid	Y
00024640	SMART BUSINESS SOURCE, LLC	06/10/2025	07/01/2025	21.98	0.00	Paid	Y
00024641	SMART BUSINESS SOURCE, LLC	06/10/2025	07/01/2025	410.72	0.00	Paid	Y
00024632	FIRST NATIONAL BANK	06/13/2025	06/13/2025	4,931.65	0.00	Paid	Y
00024633	HOWELL TOWNSHIP	06/13/2025	06/13/2025	123.08	0.00	Paid	Y
00024634	AMERICAN FUNDS	06/13/2025	06/13/2025	3,142.06	0.00	Paid	Y
00024635	EMPOWER	06/13/2025	06/13/2025	1,449.29	0.00	Paid	Y
00024642	CARLISLE WORTMAN ASSOC, INC.	06/06/2025	07/01/2025	910.00	0.00	Paid	Y
00024643	CARLISLE WORTMAN ASSOC, INC.	06/06/2025	07/01/2025	380.00	0.00	Paid	Y
00024644	CARLISLE WORTMAN ASSOC, INC.	06/06/2025	07/01/2025	1,100.00	0.00	Paid	Y
00024645	CARLISLE WORTMAN ASSOC, INC.	06/06/2025	07/01/2025	380.00	0.00	Paid	Y
00024646	SPICER GROUP	06/11/2025	06/30/2025	1,288.75	0.00	Paid	Y
00024647	SPICER GROUP	06/11/2025	06/30/2025	3,850.00	0.00	Paid	Y
00024648	SPICER GROUP	06/11/2025	06/30/2025	462.00	0.00	Paid	Y
00024649	SPICER GROUP	06/11/2025	06/30/2025	874.25	0.00	Paid	Y
00024650	SPICER GROUP	06/11/2025	06/30/2025	3,754.00	0.00	Paid	Y
00024651	SPICER GROUP	06/11/2025	06/30/2025	2,117.50	0.00	Paid	Y
00024652	CARLISLE WORTMAN ASSOC, INC.	06/11/2025	06/30/2025	840.00	0.00	Paid	Y

INVOICE REGISTER FOR HOWELL TOWNSHIP

Inv Ref #	Vendor	Invoice Date	Due Date	Invoice Amount	Amount Due	Status	Posted
00024653	CARLISLE WORTMAN ASSOC, INC.	06/11/2025	06/30/2025	1,427.50	0.00	Paid	Y
00024654	CARLISLE WORTMAN ASSOC, INC.	06/11/2025	06/30/2025	397.50	0.00	Paid	Y
00024655	NETWORK SERVICES GROUP, LLC	06/06/2025	07/01/2025	450.00	0.00	Paid	Y
00024656	ASTI ENVIRONMENTAL	05/21/2025	07/01/2025	11,425.38	0.00	Paid	Y
00024657	REPUBLIC SERVICES	05/31/2025	07/01/2025	128.19	0.00	Paid	Y
00024658	DTE ENERGY	06/03/2025	06/25/2025	580.37	0.00	Paid	Y
00024659	DTE ENERGY	06/03/2025	06/25/2025	234.55	0.00	Paid	Y
00024660	DTE ENERGY	06/03/2025	06/25/2025	191.23	0.00	Paid	Y
00024661	CINTAS CORPORATION	06/11/2025	06/25/2025	124.57	0.00	Paid	Y
00024662	SMART BUSINESS SOURCE, LLC	06/12/2025	06/25/2025	175.38	0.00	Paid	Y
00024663	GANNETT MICHIGAN LOCALIQ	06/01/2025	06/20/2025	559.28	0.00	Paid	Y
00024664	FIRE PROTECTION PLUS, INC	06/11/2025	06/20/2025	1,054.00	0.00	Paid	Y
00024665	LASHBROOK SEPTIC SERVICE	06/11/2025	06/20/2025	150.00	0.00	Paid	Y
00024666	MICHIGAN TWP ASSOC	06/12/2025	06/20/2025	335.70	0.00	Paid	Y
00024668	DTE ENERGY	06/11/2025	07/03/2025	497.60	0.00	Paid	Y
00024669	DTE ENERGY	06/11/2025	07/03/2025	286.97	0.00	Paid	Y
00024670	DTE ENERGY	06/11/2025	07/03/2025	35.17	0.00	Paid	Y
00024671	DTE ENERGY	06/11/2025	07/03/2025	181.45	0.00	Paid	Y
00024672	DTE ENERGY	06/11/2025	07/03/2025	265.71	0.00	Paid	Y
00024673	DTE ENERGY	06/11/2025	07/03/2025	518.17	0.00	Paid	Y
00024674	DTE ENERGY	06/11/2025	07/03/2025	6,759.96	0.00	Paid	Y
00024675	DTE ENERGY	06/11/2025	07/03/2025	271.99	0.00	Paid	Y
00024680	BLUE CARE NETWORK	06/27/2025	06/27/2025	4,797.13	0.00	Paid	Y
00024678	FIRST NATIONAL BANK	06/27/2025	06/27/2025	5,358.11	0.00	Paid	Y
00024679	HOWELL TOWNSHIP	06/27/2025	06/27/2025	123.08	0.00	Paid	Y
00024681	AMERICAN FUNDS	06/27/2025	06/27/2025	3,450.98	0.00	Paid	Y
00024682	TREASURY STATE OF MICHIGAN	06/27/2025	06/27/2025	1,813.60	0.00	Paid	Y
00024683	EMPOWER	06/27/2025	06/27/2025	1,449.29	0.00	Paid	Y
00024721	FIRST NATIONAL BANK	07/11/2025	07/11/2025	5,048.41	0.00	Paid	Y
00024722	HOWELL TOWNSHIP	07/11/2025	07/11/2025	123.08	0.00	Paid	Y
00024723	AMERICAN FUNDS	07/11/2025	07/11/2025	3,201.85	0.00	Paid	Y
00024724	EMPOWER	07/11/2025	07/11/2025	1,453.43	0.00	Paid	Y

of Invoices: 86 # Due: 0
 # of Credit Memos: 0 # Due: 0
 Net of Invoices and Credit Memos:

Totals:
 Totals:

221,684.28 0.00
 0.00 0.00
 221,684.28 0.00

C Agrees with Check Register BK

--- TOTALS BY FUND ---

101 GENERAL FUND	95,608.53	0.00
208 PARK/RECREATION FUND	11,425.38	0.00
592 SWR/WTR	112,882.37	0.00
701 TRUST & AGENCY	1,768.00	0.00

--- TOTALS BY DEPT/ACTIVITY ---

000 OTHER	68,250.37	0.00
101 TOWNSHIP BOARD	193.76	0.00
215 CLERK	335.70	0.00
265 TOWNSHIP HALL	4,615.11	0.00
268 TOWNSHIP AT LARGE	32,321.07	0.00
276 CEMETERY	1,325.00	0.00
536 SEWER/WATER	63,750.00	0.00
537 CHARGES FOR SERVICES	493.65	0.00
538 WWTP	46,717.72	0.00

INVOICE REGISTER FOR HOWELL TOWNSHIP

Inv Ref #	Vendor	Invoice Date	Due Date	Invoice Amount	Amount Due	Status	Posted
	701 PLANNING			3,271.18	0.00		
	702 ZONING			410.72	0.00		

CHECK REGISTER FOR HOWELL TOWNSHIP

CHECK DATE 06/01/2025 - 06/30/2025

Check Date	Check	Vendor Name	Description	Amount
Bank GEN GENERAL FUND CHECKING				
06/10/2025	19077	ABSOPURE	3 BOTTLES DELIVERY	28.80
			COOLER RENTAL JUNE 2025	12.00
				40.80
06/10/2025	19078	BRAMLETT HEATING & COOLING CO	SPRING MAINTENANCE ON TWP HALL FURNACES	500.00
06/10/2025	19079	DTE ENERGY	STREETLIGHTS	676.27
06/10/2025	19080	FAHEY SCHULTZ BURZYCH RHODES	GENERAL	536.50
			ZONING	57.00
			BURKHART ROAD ASSOCIATES (22-292-AA)	797.50
			HOWELL-MASON LLC (24-350-AA)	3,792.00
			HOWELL-MASON LLC LITIGATION (34-32242-C	14,334.16
			CODE ENFORCEMENT	291.00
			HOWELL TOWNSHIP V SHANE FAGAN (25-398-A	6,939.30
			GENERAL	1,538.50
			ZONING	199.50
			HOWELL-MASON LLC (24-350-AA)	72.00
			BURKHART ROAD ASSOCIATES (22-292-AA)	852.50
				29,409.96
06/10/2025	19081	THE GARBAGE MAN	SPRING CLEANUP 2025 & JULY - SEPT PICKU	1,692.01
06/10/2025	19082	GUARDIAN ALARM	ALARM MONITORING 7/1 -12/31/25	1,021.44
06/10/2025	19083	LIV CO MUNIC CLERKS ASSOC	ANNUAL CLERK DUES 7/1/2025 - 6/30/2026	100.00
06/10/2025	19084	MICRO WORKS COMPUTING, INC	CHANGE SERVER PASSWORD, GIVE MARNIE BS&	120.00
06/10/2025	19085	MUTUAL OF OMAHA INSURANCE COM	JUNE 2025	219.00
06/10/2025	19086	PERFECT MAINTENANCE	CLEANING TWP HALL JUNE 2025	195.00
06/10/2025	19087	SILVER LINING TIRE RECYCLING	CLEAN-UP DAY TIRE DISPOSAL (125 TIRES)	616.50
06/10/2025	19088	SMART BUSINESS SOURCE, LLC	POST IT NOTE PADS	21.98
			ZONING BINDERS FOR PERMITS	410.72
				432.70
06/10/2025	19089	SPRUNGTOWN OUTDOOR SERVICES	MAY 2025 LAWN & LANDSCAPE SERVICES	4,875.00
06/10/2025	101002044(E)	COMCAST	JUNE 2025	435.85
06/10/2025	101002045(E)	CONSUMERS ENERGY	TWP HALL MAY 2025	130.93
06/13/2025	101002040(E)	EMPOWER	Remittance check	1,449.29
06/13/2025	101002041(E)	FIRST NATIONAL BANK	Remittance check	4,931.65
06/13/2025	101002042(E)	HOWELL TOWNSHIP	Remittance check	123.08
06/13/2025	101002043(E)	AMERICAN FUNDS	Remittance check	3,142.06
06/23/2025	19090	CARLISLE WORTMAN ASSOC, INC.	GENERAL CONSULTATION	910.00
			NSC TEXT AMENDMENT - BERGMAN	380.00
			MONTHLY RETAINER MAY 2025	1,100.00
			NSC TEXT AMENDMENT - PARKS	380.00
			Check Request For Bond: BSP25-0004	840.00
			Check Request For Bond: BSP25-0005	1,427.50
			Check Request For Bond: BSP21-0006	397.50
				5,435.00
06/23/2025	19091	CINTAS CORPORATION	BLUE MATS	124.57

CHECK REGISTER FOR HOWELL TOWNSHIP

CHECK DATE 06/01/2025 - 06/30/2025

Check Date	Check	Vendor Name	Description	Amount
Bank GEN GENERAL FUND CHECKING				
06/23/2025	19092	FIRE PROTECTION PLUS, INC	ANNUAL INSPECTION AND CHANGE 5 LED LIGH	1,054.00
06/23/2025	19093	BLUE CARE NETWORK	Remittance Check	4,797.13
06/23/2025	19094	LASHBROOK SEPTIC SERVICE	SPRING CLEANUP MAY 2025	150.00
06/23/2025	19095	GANNETT MICHIGAN LOCALIQ	MAY PUBLICATIONS	559.28
06/23/2025	19096	MICHIGAN TWP ASSOC	2025 ESTA AND CEMETERY CLASS (2 ATTENDE	335.70
06/23/2025	19097	NETWORK SERVICES GROUP, LLC	ANNUAL WEB HOSTING 7/1/25 - 6/30/2026	450.00
06/23/2025	19098	SMART BUSINESS SOURCE, LLC	ZONING BINDERS FOR PERMITS REMAINING 6	175.38
06/23/2025	19099	SPICER GROUP	Check Request For Bond: BSP21-0006	1,288.75
			Check Request For Bond: BSP24-0009	3,850.00
			Check Request For Bond: BSP21-0005	462.00
			Check Request For Bond: BSP25-0005	874.25
			Check Request For Bond: BSP25-0002	3,754.00
			Check Request For Bond: BSP25-0003	2,117.50
				<u>12,346.50</u>
06/23/2025	101002051(E)	DTE ENERGY	TWP HALL JUNE 2025	497.60
06/27/2025	101002046(E)	EMPOWER	Remittance Check	1,449.29
06/27/2025	101002047(E)	FIRST NATIONAL BANK	Remittance Check	5,358.11
06/27/2025	101002048(E)	HOWELL TOWNSHIP	Remittance Check	123.08
06/27/2025	101002049(E)	AMERICAN FUNDS	Remittance Check	3,450.98
06/27/2025	101002050(E)	TREASURY STATE OF MICHIGAN	Remittance Check	1,813.60
06/27/2025	101002052(E)	EMPOWER	Remittance Check	1,453.43
06/27/2025	101002053(E)	FIRST NATIONAL BANK	Remittance Check	5,048.41
06/27/2025	101002054(E)	HOWELL TOWNSHIP	Remittance Check	123.08
06/27/2025	101002055(E)	AMERICAN FUNDS	Remittance Check	3,201.85
GEN TOTALS:				
Total of 39 Checks:				98,058.53
Less 0 Void Checks:				0.00
Total of 39 Disbursements:				<u>98,058.53</u>
Bank T&A TRUST & AGENCY CHECKING				
06/03/2025	3678	GCT METER FUND	Check Request For Bond: BMHOG25-0003	896.00
06/03/2025	3679	LIVINGSTON COUNTY TREASURER	DOG LICENSES	32.00
06/03/2025	3680	LIVINGSTON COUNTY TREASURER	MOBILE HOME FEES	840.00
T&A TOTALS:				
Total of 3 Checks:				1,768.00
Less 0 Void Checks:				0.00
Total of 3 Disbursements:				<u>1,768.00</u>
Bank UTYCK UTILITY CHECKING				
06/05/2025	3323	BIOTECH AGRONOMICS, INC	BIOSOLIDS TESTING	1,921.00
06/05/2025	3324	BRIGHTON ANALYTICAL	ANIONS	30.00
06/05/2025	3325	FRANKLIN HOLWERDA CO.	CLARIFIER INSTALLATION	63,750.00
06/05/2025	3326	GENOA-OCEOLA SWATH	LAB COSTS JAN - MAR 2025	3,565.58
06/05/2025	3327	GENOA TOWNSHIP DPW	MAINTENANCE FEE JUNE 2025	30,920.92
06/05/2025	3328	PRINTING SYSTEMS	UTILITY BILLING STOCK	493.65
06/05/2025	59004155(E)	AT&T	JUNE 2025	128.04
06/05/2025	59004156(E)	CONSUMERS ENERGY	391 N BURKHART RD MAY 2025	24.23
06/05/2025	59004157(E)	CONSUMERS ENERGY	2571 OAKGROVE RD MAY 2025	145.19

CHECK REGISTER FOR HOWELL TOWNSHIP

CHECK DATE 06/01/2025 - 06/30/2025

Check Date	Check	Vendor Name	Description	Amount	
Bank UTYCK UTILITY CHECKING					
06/23/2025	3329	ASTI ENVIRONMENTAL	LIMITED PHASE II ESA	11,425.38	V
06/23/2025	3330	REPUBLIC SERVICES	WASTE PICKUP 5/01-5/31/25	128.19	V
06/23/2025	3331	ASTI ENVIRONMENTAL	LIMITED PHASE II ESA	11,425.38	
06/23/2025	3332	REPUBLIC SERVICES	WASTE PICKUP 5/01-5/31/25	128.19	
06/23/2025	59004158(E)	DTE ENERGY	2571 OAK GROVE JUNE 2025	580.37	
06/23/2025	59004159(E)	DTE ENERGY	1009 N BURKHART RD JUNE 2025	234.55	
06/23/2025	59004160(E)	DTE ENERGY	391 N BURKHART JUNE 2025	191.23	
06/23/2025	59004161(E)	DTE ENERGY	1034 AUSTIN CT JUNE 2025	286.97	
06/23/2025	59004162(E)	DTE ENERGY	1216 PACKARD JUNE 2025	35.17	
06/23/2025	59004163(E)	DTE ENERGY	3888 OAKGROVE JUNE 2025	181.45	
06/23/2025	59004164(E)	DTE ENERGY	2700 TOOLEY JUNE 2025	265.71	
06/23/2025	59004165(E)	DTE ENERGY	1575 N BURKHART JUNE 2025	518.17	
06/23/2025	59004166(E)	DTE ENERGY	1222 PACKARD DR JUNE 2025	6,759.96	
06/23/2025	59004167(E)	DTE ENERGY	2559 W GRAND RIVER JUNE 2025	271.99	
UTYCK TOTALS:					
Total of 23 Checks:				133,411.32	
Less 2 Void Checks:				11,553.57	
Total of 21 Disbursements:				121,857.75	
REPORT TOTALS:					
Total of 65 Checks:				233,237.85	
Less 2 Void Checks:				11,553.57	
Total of 63 Disbursements:				221,684.28	

C Agrees with Invoice Register
Bk

CHECK REGISTER FOR HOWELL TOWNSHIP

For Check Dates 06/01/2025 to 06/30/2025

Check Date	Bank	Check Number	Name	Check Gross	Physical Check Amount	Direct Deposit	Status
06/13/2025	GEN	DD6209	BRENT J. KILPELA	5,304.95	0.00	3,973.30	Cleared
06/13/2025	GEN	DD6210	CAROL A. MAKUSHIK	2,273.10	0.00	1,449.85	Cleared
06/13/2025	GEN	DD6211	SUSAN K. DAUS	1,601.65	0.00	1,157.56	Cleared
06/13/2025	GEN	DD6212	TANYA L. DAVIDSON	2,008.63	0.00	1,488.96	Cleared
06/13/2025	GEN	DD6213	MICHAEL CODDINGTON	1,409.33	0.00	934.17	Cleared
06/13/2025	GEN	DD6214	JONATHAN C. HOHENSTEIN	4,178.93	0.00	2,692.11	Cleared
06/13/2025	GEN	DD6215	TERESA M. MURRISH	2,056.95	0.00	1,520.92	Cleared
06/13/2025	GEN	DD6216	MARNIE E. HEBERT	2,113.51	0.00	1,740.21	Cleared
06/27/2025	GEN	DD6217	BRENT J. KILPELA	5,304.95	0.00	3,973.29	Cleared
06/27/2025	GEN	DD6218	CAROL A. MAKUSHIK	2,240.00	0.00	1,424.01	Cleared
06/27/2025	GEN	DD6219	MATTHEW E. COUNTS	508.92	0.00	448.36	Cleared
06/27/2025	GEN	DD6220	SHANE FAGAN	508.92	0.00	448.36	Cleared
06/27/2025	GEN	DD6221	JEFFREY A. SMITH	160.00	0.00	140.96	Cleared
06/27/2025	GEN	DD6222	ROBERT K. WILSON	508.92	0.00	448.36	Cleared
06/27/2025	GEN	DD6223	SUSAN K. DAUS	1,681.65	0.00	1,218.45	Cleared
06/27/2025	GEN	DD6224	TANYA L. DAVIDSON	1,987.92	0.00	1,475.29	Cleared
06/27/2025	GEN	DD6225	TIMOTHY C. BOAL	588.92	0.00	518.84	Cleared
06/27/2025	GEN	DD6226	CHARLES J. FRANTJESKOS JR	80.00	0.00	70.48	Cleared
06/27/2025	GEN	DD6227	SHARON LOLLIO	80.00	0.00	70.48	Cleared
06/27/2025	GEN	DD6228	MICHAEL W. NEWSTEAD	80.00	0.00	70.48	Cleared
06/27/2025	GEN	DD6229	ROBERT A. SPAULDING	80.00	0.00	70.48	Cleared
06/27/2025	GEN	DD6230	MATT STANLEY	80.00	0.00	70.48	Cleared
06/27/2025	GEN	DD6231	WAYNE R. WILLIAMS JR	80.00	0.00	73.88	Cleared
06/27/2025	GEN	DD6232	MICHAEL CODDINGTON	1,409.33	0.00	934.16	Cleared
06/27/2025	GEN	DD6233	JONATHAN C. HOHENSTEIN	4,178.93	0.00	2,692.09	Cleared
06/27/2025	GEN	DD6234	TERESA M. MURRISH	2,054.47	0.00	1,519.29	Cleared
06/27/2025	GEN	DD6235	MARNIE E. HEBERT	2,113.51	0.00	1,740.19	Cleared
Report Total:				44,673.49	0.00	32,365.01	
Number of Checks				27			
Total Physical Checks				0			
Total Check Stubs				27			