

**From:** [Honea, William](#)  
**To:** [Heinze, Cody W - DNR](#)  
**Subject:** Ludington Street Project 02-38591174 & 15-38-591306  
**Date:** Tuesday, March 19, 2024 4:07:14 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[Receiving Site Exceedance Map Sampling Plan.pdf](#)  
[Ludington Scope of Work Plan.pdf](#)

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Good afternoon Cody,

As we discussed during our phone conversation last week, work has commenced at the Ludington Street material management site. The contractor is making good progress and is expected to complete the clearing and grubbing of the site by the end of this week.

If possible the contractor would like to reuse topsoil as part of the site cap. We hadn't previously tested the topsoil, so I visited the site last week to assess the situation. These are the key findings from my visit:

1. **Topsoil Quantity:** Approximately 150 yards of topsoil (the top 4 inches) have been stripped from half of the site. The contractor has stockpiled this topsoil on the property.
2. **Topsoil Condition:** Upon inspection, the topsoil appeared to be in good condition. No staining or odors were observed.
3. **Soil Sampling:** I collected three soil samples from the topsoil stockpile and submitted them to the lab for analysis of volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and RCRA metals. We will share the results with you as soon as they become available.

Additionally, the City is moving forward with the site investigation. We have attached the proposed scope of work for your reference. The proposed testing plan aims to delineate the extent of the fill layer. Based on the information we have, it appears to be an "area-wide" issue that likely extends beyond the property boundaries. Our objective at each proposed boring location is to drill through the fill and reach the underlying native sediments. Near Ludington Street, these native sediments are likely 12 feet below ground surface (bgs) or less, while along the south side of the site, they may extend up to 20 feet bgs. For your reference, we have included a site map that highlights the test pit sampling results and indicates the locations of the proposed borings. Yellow markers represent the proposed boring locations, while red markers indicate former test pit locations.

Please feel free to reach out if you have any questions.

Thanks



**Bill Honea, PG | Geologist**

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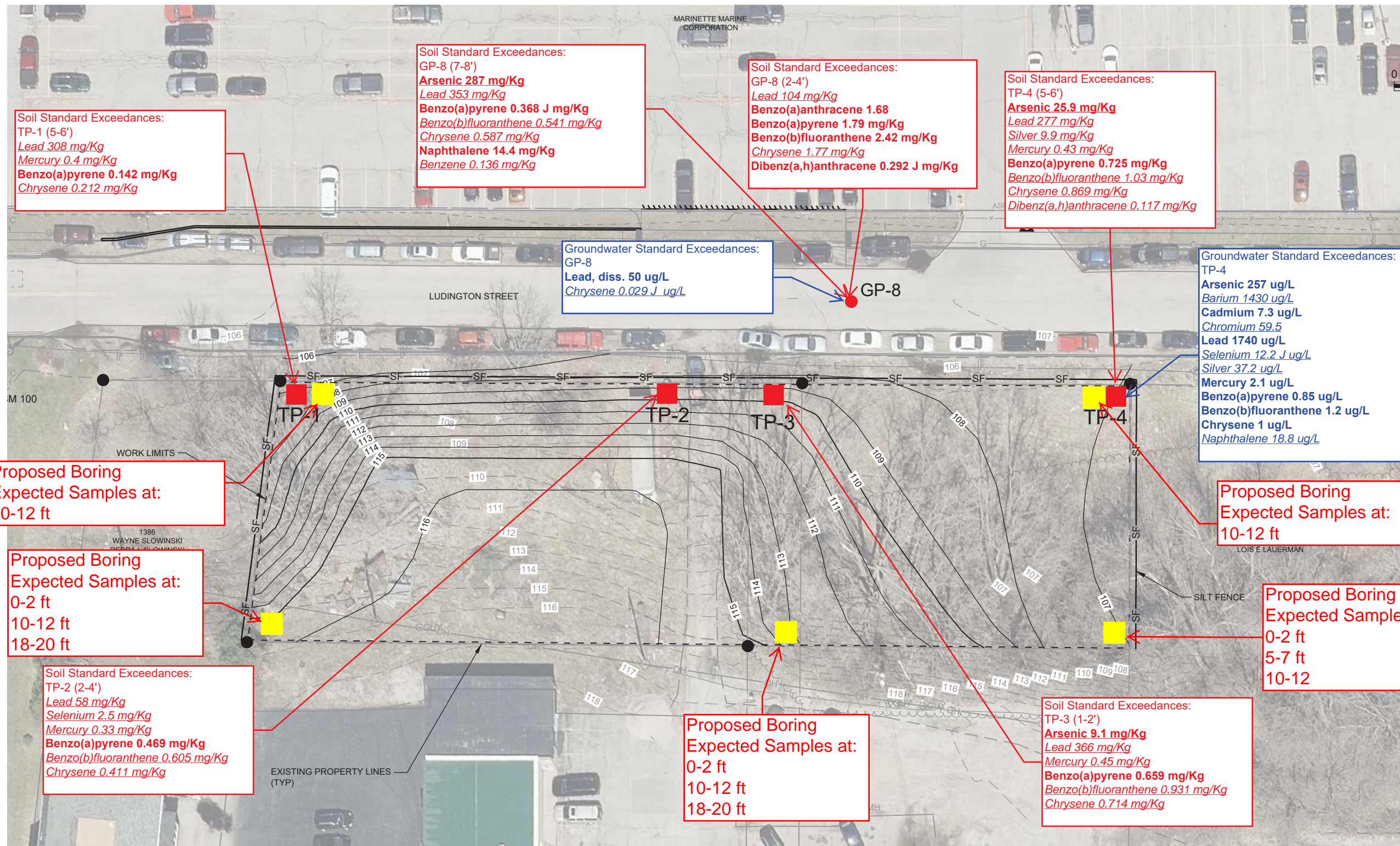
*Ingenuity, Integrity, and Intelligence.*

The objective of this scope of work for the Ludington Street Receiving Site is to define the extent of contamination associated with historic fill previously identified along Ludington Street. To accomplish the objective, the following is proposed.

- Notify the WDNR of the proposed soil testing in this scope. The notification will include a work plan with a map showing the proposed sample locations.
- Submit sampling results notification to WDNR within 10 days of receiving laboratory data. The notification will include a map showing the sample locations, tables summarizing the chemical testing results, and laboratory analytical reports.
- Advance up to five soil probes from the surface, through historic fill, and at least 2 feet into the underlying native sediments, or to a maximum depth of 20 feet, whichever occurs first. Probe locations will be selected using historical information combined with professional judgment.
- Continuous soil cores will be collected from each probe and logged using the Unified Soils Classification System (USCS). The cores will be field screened for organic vapors using a photoionization detector (PID) equipped with a 10.7 eV lamp and calibrated to 100 parts per million (ppm) isobutylene gas.
- Record soil descriptions, probe locations, PID responses, and sample depths on soil boring logs or in a bound field book. After the completion of soil sampling, probes will be abandoned per the Wisconsin Administrative Code using bentonite chips no greater than 3/8-in diameter. The abandonment procedures will be documented using WDNR Well/Borehole Abandonment Form 3300-5B.
- Submit up to 11 soil samples and one field duplicate to a Wisconsin-certified laboratory for RCRA 8 metal and polycyclic aromatic hydrocarbon (PAH) analysis. These analytes were selected based on the results of previous investigations at the site. Samples will be collected in laboratory-supplied containers, placed on ice, or preserved as required by the analytical method and shipped to the laboratory under proper chain-of-custody procedures.
- Data obtained from sampling and chemical testing will be evaluated in relation to the project objectives and documented in a written report. Chemical testing results will be screened against Wisconsin Administrative Code NR 720 residual contaminate levels (RCLs). The report will include a description of the site conditions, a map showing the testing locations, a results table, an interpretation of data, and recommendations.
- Soil sampling will generate minor amounts of waste in the form of disposable sampling supplies and personal protective equipment (PPE). Disposable PPE and sampling supplies will be collected in trash bags and properly disposed of off-site. Excess soil cuttings will be left onsite and managed with the contaminated soil from Ludington Street.



0 20 40



Proposed Boring  
Expected Samples at:  
10-12 ft

Proposed Boring  
Expected Samples at:  
0-2 ft  
10-12 ft  
18-20 ft

Soil Standard Exceedances:  
TP-2 (2-4')  
Lead 58 mg/Kg  
Selenium 2.5 mg/Kg  
Mercury 0.33 mg/Kg  
Benzo(a)pyrene 0.469 mg/Kg  
Benzo(b)fluoranthene 0.605 mg/Kg  
Chrysene 0.411 mg/Kg

Proposed Boring  
Expected Samples at:  
0-2 ft  
10-12 ft  
18-20 ft

Proposed Boring  
Expected Samples at:  
10-12 ft

Proposed Boring  
Expected Samples at:  
0-2 ft  
5-7 ft  
10-12

Soil Standard Exceedances:  
TP-3 (1-2')  
Arsenic 9.1 mg/Kg  
Lead 366 mg/Kg  
Mercury 0.45 mg/Kg  
Benzo(a)pyrene 0.659 mg/Kg  
Benzo(b)fluoranthene 0.931 mg/Kg  
Chrysene 0.714 mg/Kg

- NOTES:
1. CONTRACTOR MAY MULCH WITH TACHIFIER OR HYDROSEED/MULCH ENTIRE SITE FOLLOWING CONSTRUCTION.
  2. SLOPES SHALL NOT EXCEED 4:1.
  3. SEED AND FERTILIZE ALL DISTURBED AREAS WITH A MIXTURE OF WISDOT NO. 20 AND NO. 70. PROVIDE APPROPRIATE NURSE CROP PER WISDOT SECTION 630.2.1.5.3.

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ARLODEL LLC

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ANDY'S AUTO REPAIR  
AND FABRICATION

AA-Standard.snb  
12/15/2022  
I:\25\Marinette City of\25-0269.00\Main\Site\Drawings\Site\Drawings\Layout\_C-504

DES BY	TAH	PROJ NO	NO	DATE	REVISION	NO	DATE	REVISION
JWS		25-0269.00						
CRS		DECEMBER 2022						

DOWNTOWN AREA IMPROVEMENTS  
LUDINGTON, WELLS AND MAIN STREETS  
CITY OF MARINETTE



PROPOSED SITE PLAN  
SPOILS DISPOSAL SITE

SHEET NO.  
C-504