**AGENDA**

**UTILITIES SERVICE BOARD MEETING**

Utilities Service Center Boardroom
City of Bloomington Utilities
600 E. Miller Dr.
Bloomington, Indiana 47401

Amanda Burnham, President
Megan Parmenter, Vice President
Jeff Ehman
Seth Debro
Jim Sherman
Kirk White
Molly Stewart
Jacqueline Scanlan, ex officio
TBD, ex officio

This meeting may be attended electronically via Zoom by using the following link:
Join Zoom Meeting
https://bloomington.zoom.us/j/84976612985?pwd=ZmkklppflYMi7YrBbnCnH6g2akedip.1

Meeting ID: 849 7661 2985
Passcode: 332818

Tuesday, January 23, 2023
**4:00 p.m. Special Meeting**

I. Call to Order

II. Bid Opening - Miller Showers Dredging and Disposal - Kat Zaiger

III. Petitions and Communications*

IV. Adjournment

*Public Comment will be limited to 5 minutes per person

CITY OF BLOOMINGTON UTILITIES

ADDENDUM NUMBER ONE

MILLER SHOWERS DREDGING AND DISPOSAL
150 W 17th St, Bloomington, IN 47404

**Date of Addendum: December 22, 2023**
**Date of Bid Opening: January, 09 2024**

To all bidders on the project:

The information contained in this Addendum shall become a part of the basic plans and specifications the same as if originally incorporated therein. The original plans and specifications shall remain in their entirety, except as modified by this Addendum. The items herein shall supersede information in the specifications and on the plans.

1. SEDIMENT DEWATERING LOCATION AND SPECIFICATIONS

   The original scope of work stated to "pump water from the dredging project into four 100-foot by 30-foot geotextile sediment tubes located east of the stream north of the two ponds before releasing the water back into an Unnamed Tributary to Griffy Creek."

   Instead of east, this should read west of the stream.

   Additionally, alternative sizing of the dewatering structures can and should be considered as long as it matches the same 12,000 sq. ft. footprint and does not make contact with the adjacent stream. Please see Exhibit A which indicates where all dewatering devices MUST be located. Existing trees (≥ 2" dbh) in this area cannot be removed.

2. BIDDERS QUESTIONS & RESPONSES

- *Do you have any treatability testing done on the sediment, or past information on geotextile dewatering of this sediment such as and polymer type and usage.*
  - We do not.
- *When was the last time these ponds were dredged?*
  - They have never been dredged since they were built in 2002.
- *Is there any requirement for the polymer and or dewatering aids used by the selected contractor?*
  - Only requirement is that the footprint of the dewatering bags does not exceed 12,000 square feet and remain in the area marked in Exhibit A.
- *Are there any filtrate water discharge requirements and or Permit, If so please share. IDEM number 2023-699-53-ERL-A.*

    - Please see Exhibit B for 401 Water Quality Characterization Permit associated with this project.
- *Can you share the solids content (%) of the Insitu sediment in the ponds?*
    - Percent moisture can be found in Exhibit C for Analytical Results.
- *Can you share as-build drawings from the ponds?*
    - Please see exhibit D for as-built drawings.
- *Using google earth we are unable to locate the 5.56 acres of open water in the Miller Showers Park location. Can you provide a drawing with the proposed dredging prism including design depths?*
    - Please see Exhibit E for bathymetric surveys and Exhibit D for as-built drawings.
- *What is the definition of clean? How will we know when the project is completed?*
    - When the depths of the ponds are returned to their original design depths.
- *Is there a tolerance of the dredging depth objective? Usually there is a +/- 6 inch or sometimes a mandatory depth is needed and there is an allowable overdredge tolerance.*
    - These ponds have a hard clay bottom so over dredging will not be acceptable. A +6” tolerance will be considered.
- *Do the ponds have a hard bottom or a liner? If there is a liner, what material is it.*
    - From what we can ascertain from 20+ year old documents the bottom of the pond is a clay liner.
- *What should the contractor do with existing vegetation in the ponds? Hydraulically dredging vegetation can be problematic and require mechanical removal prior to dredging.*
    - Any vegetation encountered can be removed manually so long as it is disposed of in a manner that is consistent with all state, local and federal laws. Mechanical removal, if necessary, can be considered as long as there is minimal disturbance to the surrounding terrestrial vegetation.
- *Can you share ACAD file drawings from the pond.*
    - We cannot.
- *Do you have a Waste Profile for the dewatered sediment which can be shared with Landfills.*
    - We do not.
- *Can you share the Landfill which was used last time these ponds were dredged.*
    - They have never been dredged.
- *Is the dewatered sediment suitable for re-use such as land apply or for other methods.*
    - Not sure.
- *Do you have particle size distribution for the sediment?*
    - We do not.
- *Are there any known contaminants in the ponds?*
    - Please see Exhibit C for lab results.
- *Do you have analytical testing performed on the sediment, if so, can you share.*
    - Please see Exhibit C.

- *Where are the 4 – 100' x 30' geotextile tubes supposed to be deployed. Looking to the North of the ponds on the East side there doesn't seem to be enough room. Are there drawings or renderings available?*
    - This was a mistake and should have said west of the stream. See Exhibit A for a map indicating where the tubes should go.
- *How was volume determined? If soundings were taken, are those available to show how the sediment is distributed throughout the ponds?*
    - The volume was determined through bathymetric surveys done in 2021. Please see Exhibit E for bathymetric surveys used.
- *How was the reduction from 2,900 cyds in situ to 1,880 cyds dewatered determined? Was there treatability work done to determine insitu percent solids, chemistry needed, and the resulting dewatered percent solids?*
    - These are estimates based off of the results of the bathymetric survey. Treatability work was not done to determine in situ percent solids, chemistry needed, and the resulting dewatered percent solids.
- *Is there a project estimate/budget for the Miller Shower Park Dredging & Disposal project?*
    - There is not a publicly available estimate for this job.
- *Can the bid date be pushed back? Asking due to the holidays, performing a site visit if we cannot make the pre-bid date and for obtaining bonds.*
    - The bid date will not be pushed back.
- *Is an Indiana contractor's license required to bid on this project?*
    - On page 7 Article 2 of the Final Project manual it states that "Each Bid must contain evidence of Bidder's authority and qualification to do business in the State of Indiana. Evidence shall consist of a certification from the state in accordance with IC 4-13.6-4 or IC 8-23-10 if the value of the contract is greater than $300,000."
- *Can we remove the rock mechanically rather than hydraulically? Hydraulic dredges do not tend to dredge rock very well and this can cause down time cleaning out the cutterhead and/or pipe.*
    - Due to the sensitivity of the surrounding native plantings, we do not want large equipment, other than that necessary for hydraulic dredging, to be used in the pond.

**END OF ADDENDUM**

# Exhibit A


| Title | | Enter your notes here! | Utilities |
|---|---|---|---|
| Author | Center: 86°32'4"W 39°10'57"N | | |
| 12/20/2023 3:20 PM | Scale: 1" = 94' | | |
| Important Notice: The position of underground utilities are shown schematically. Please call 811 to have all underground utilities located. | | 0 0.01 0.01 0.03 0.04 0.06 mi | |

# Exhibit B

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
*We Protect Hoosiers and Our Environment.*
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov
**Eric J. Holcomb**, *Governor*
**Brian C. Rockensuess**, *Commissioner*

# Section 401 Water Quality Certification

VIA ELECTRONIC MAIL:

| | |
|---|---|
| IDEM Number: | 2023-699-53-ERL-A |
| USACE Number: | |
| Project Name: | Miller Showers Park Dredging |
| Authority: | 327 IAC 2. CWA Sections: 301, 302, 303, 306, 307, & 401 |
| Date of Issuance: | September 18, 2023 |
| Impacts must be completed by: | September 18, 2025 |

Approved:

Brian Wolff, Branch Chief
Surface Water and Operations
Office of Water Quality

Applicant / Permittee:
City of Bloomington
Attention: Katherine Zaiger
600 Miller Drive
Bloomington, IN 47401

Agent:
Davey Resource Group
Attention: Patrick Ewbank
5641 West 73rd Street
Indianapolis, IN 46278

Project Location:
Monroe County
Latitude 39.1810051, Longitude -86.5342483
1500 College Avenue
Bloomington, IN 47404

Project Description: Hydraulically dredge 5.56 acres of open water in two ponds at Miller Showers Park to remove excess sediment. Pump water from the dredging project into four 100-foot by 30-foot geotextile sediment tubes before releasing the water back into an Unnamed Tributary to Griffy Creek.

## Authorized Impacts

| STREAM IMPACT(S) | Impact (cubic yards) | | |
|---|---|---|---|
| **Type of Impact:** | **Ephemeral** | **Intermittent** | **Perennial** |
| Return water from hydraulic dredging | 940 | | |

Application Signed: August 1, 2023

Application Received: August 1, 2023

Based on available information, it is the judgment of this office that the impacts from the proposed project as outlined by this Section 401 Water Quality Certification and described in your application will comply with the applicable provisions of 327 IAC 2 and Sections 301, 302, 303, 306, and 307 of the Clean Water Act if you comply with the conditions set forth below. Therefore, subject to the following conditions, the Indiana Department of Environmental Management (IDEM) hereby grants Section 401 Water Quality Certification for the project described in your application. Any changes in project design or scope not detailed in the application described above or modified by this Section 401 Water Quality Certification are not authorized.

Failure to comply with the terms and conditions of this Section 401 Water Quality Certification may result in enforcement action against you. If an enforcement action is pursued, you could be assessed up to $25,000 per day in civil penalties. You may also be subject to criminal liability if it is determined that the Section 401 Water Quality Certification was violated willfully or negligently.

## Conditions of the Section 401 Water Quality Certification

### 1.0 General

(a) Implement the project as depicted and described in the application for Section 401 Water Quality Certification as modified by the conditions of this certification.

(b) Per 33 CFR 325.6(c), 327 IAC 5-2-6, IC 13-15-3-2 the federal license shall have an established timeframe. Therefore, all approved discharges must be completed within the term of the valid federal permit.

(c) Per IC 13-14-2-2, the department may inspect public or private property to inspect for and investigate possible violations of environmental management laws. Therefore, the commissioner or an authorized representative of the commissioner (including an authorized contractor), upon the presentation of credentials must be allowed:

(1) to enter your property, including impact and mitigation site(s);
(2) to have access to and copy at reasonable times any records that must be kept under the conditions of this certification;
(3) to inspect, at reasonable times, any monitoring or operational equipment or method; collection, treatment, pollution management or discharge facility or device; practices required by this certification; and any mitigation wetland site;
(4) to sample or monitor any discharge of pollutants or any mitigation site.

## 2.0 Erosion and Sediment Control

Per 40 CFR 122.26, 327 IAC 15; 327 IAC 2-1; 327 IAC 2-1.5, the use of appropriate stormwater control measures and maintenance thereof will prevent any sediment laden water from migrating off site and entering waterways and wetlands, potentially impairing water quality. Therefore, the following erosion and sediment control steps must be completed.

(a) Implement erosion and sediment control measures on the construction site prior to land disturbance to minimize soil from leaving the site or entering a waterbody. Erosion and sediment control measures shall be implemented using an appropriate order of construction (sequencing) relative to the land-disturbing activities associated with the project. Appropriate measures include, but are not limited to, silt fence, diversions, and sediment traps.

(b) Monitor and maintain erosion control measures and devices regularly, especially after rain events, until all soils disturbed by construction activities have been permanently stabilized.

(c) Use run-off control measures, including but not limited to diversions and slope drains. These measures are effective for directing and managing run-off to sediment control measures and for preventing direct run-off into waterbodies.

(d) Install and make appropriate modifications to erosion and sediment control measures based on current site conditions as construction progresses on the site. The Indiana Storm Water Quality Manual or similar guidance documents are available to assist in the selection of measures that are applicable to individual project sites.

(e) As work progresses, re-vegetate areas void of protective ground cover. Areas that are to be re-vegetated shall use seeding and anchored mulch. **If alternative methods are required to ensure stabilization, erosion control blankets may be used that are biodegradable, that use loose-woven/leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation).**

(f) Anchor mulch. Anchoring shall be appropriate for the site characteristics such as slope, slope length, and concentrated flows. **Anchoring methods may not include loose netting over straw, but can range from crimping of straw, erosion control blankets as specified above that minimize wildlife entrapment, or net free blankets.** Tackifiers with mulch and hydro-mulch are acceptable and shall be applied to the manufacturer specifications.

## 3.0 Construction

Per 327 IAC 2-1-6(b)(4) the protection of existing uses for aquatic life is required and, per 327 IAC 2-1.3-2 (4) the utilization of best management practices helps ensure the protection of existing uses. Therefore, the following best management practices are required.

(a) Avoid in stream channel work during the fish spawning season (April 1 through June 30).

(b) Clearly mark wetlands and streams that are to remain undisturbed on the project site.

## Other Applicable Permits

If the land disturbance for the overall project will disturb one (1) acre or more, a construction stormwater general permit is required for the project. Permit coverage must be obtained prior to the initiation of land-disturbing activities. Information related to obtaining permit coverage is available at www.in.gov/idem/stormwater or by contacting the IDEM, Stormwater Program at 317-233-1864 or via email at Stormwat@idem.IN.gov.

This certification does not relieve you of the responsibility of obtaining any other permits or authorizations that may be required for this project or related activities from IDEM or any other agency or person. You may wish to contact the Indiana Department of Natural Resources at 317-232-4160 (toll free at 877-928-3755) concerning the possible requirement of natural freshwater lake or floodway permits.

This certification does not:

(1) Authorize impacts or activities outside the scope of this certification;
(2) Authorize any injury to persons or private property or invasion of other private rights, or any infringement of federal, state or local laws or regulations;
(3) Convey any property rights of any sort, or any exclusive privileges;
(4) Preempt any duty to obtain federal, state or local permits or authorizations required by law for the execution of the project or related activities; or
(5) Authorize changes in the plan design detailed in the application.

## Notice of Right to Administrative Review (Permits)

If you wish to challenge this permit, you must file a Petition for Administrative Review with the Office of Environmental Adjudication (OEA), and serve a copy of the petition upon IDEM. The requirements for filing a Petition for Administrative Review are found in IC 4-21.5-3-7, IC 13-15-6-1 and 315 IAC 1-3-2. A summary of the requirements of these laws is provided below.

A Petition for Administrative Review must be filed with the Office of Environmental Adjudication (OEA) within fifteen (15) days of the issuance of this notice (eighteen (18) days if you received this notice by U.S. Mail), and a copy must be served upon IDEM. Addresses are:

| | |
|---|---|
| Director | Commissioner |
| Office of Environmental Adjudication | Indiana Dept. of Environmental Management |
| Indiana Government Center North | Indiana Government Center North |
| 100 North Senate Avenue, Room N103 | 100 North Senate Avenue, Room 1301 |
| Indianapolis, Indiana 46204 | Indianapolis, Indiana 46204 |

The petition must contain the following information:

(a) The name, address and telephone number of each petitioner.
(b) A description of each petitioner's interest in the permit.
(c) A statement of facts demonstrating that each petitioner is:
    (1) a person to whom the order is directed;
    (2) aggrieved or adversely affected by the permit; or
    (3) entitled to administrative review under any law.
(d) The reasons for the request for administrative review.

(e) The particular legal issues proposed for review.
(f) The alleged environmental concerns or technical deficiencies of the permit.
(g) The permit terms and conditions that the petitioner believes would be appropriate and would comply with the law.
(h) The identity of any persons represented by the petitioner.
(i) The identity of the person against whom administrative review is sought.
(j) A copy of the permit that is the basis of the petition.
(k) A statement identifying petitioner's attorney or other representative, if any.

Failure to meet the requirements of the law with respect to a Petition for Administrative Review may result in a waiver of your right to seek administrative review of the permit. Examples are:

(a) Failure to file a Petition by the applicable deadline;
(b) Failure to serve a copy of the Petition upon IDEM when it is filed; or
(c) Failure to include the information required by law.

If you seek to have a permit stayed during the administrative review, you may need to file a Petition for a Stay of Effectiveness. The specific requirements for such a Petition can be found in 315 IAC 1-3-2 and 315 IAC 1-3-2.1.

Pursuant to IC 4-21.5-3-17, OEA will provide all parties with notice of any pre-hearing conferences, preliminary hearings, hearings, stays, or orders disposing of the review of this action. If you are entitled to notice under IC 4-21.5-3-5(b) and would like to obtain notices of any pre-hearing conferences, preliminary hearings, hearings, stays, or orders disposing of the review of this action without intervening in the proceeding you must submit a written request to OEA at the address above.

If you have procedural or scheduling questions regarding your Petition for Administrative Review, additional information on the review process is available at the website of the Office of Environmental Adjudication at http://www.in.gov/oea.

If you have any questions about this certification, please contact Erin Lish, Project Manager, by email at ELish@IDEM.IN.Gov or by phone at 317-296-0737.

cc: Sarah Keller, USACE – Indianapolis Regulatory Office
Sarah Harrison - U.S. Fish & Wildlife Service
Daniel Gautier, IDNR
Patrick Ewbank, Davey Resource Group

# Exhibit C

**Pace Analytical Services, LLC**
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

January 10, 2023

Jason Wenning
City of Bloomington Utilities
600 E. Miller Drive
Bloomington, IN 47401

RE: Project: Miller Showers Sediment
Pace Project No.: 50334358

Dear Jason Wenning:

Enclosed are the analytical results for sample(s) received by the laboratory on December 27, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Olivia Deck
olivia.deck@pacelabs.com
(317)228-3102
Project Manager

Enclosures

cc: Nathan Herr, City of Bloomington Utilities
Tyler Steury, Bloomington Utilities
Katherine Zaiger, Bloomington Utilities

**Pace Analytical Services, LLC**
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

## CERTIFICATIONS

Project: Miller Showers Sediment
Pace Project No.: 50334358

**Pace Analytical Services Indianapolis**

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Ohio VAP Certified Laboratory #: CL0065
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Wisconsin Laboratory #: 999788130
USDA Soil Permit #: P330-19-00257

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

## SAMPLE SUMMARY

Project: Miller Showers Sediment
Pace Project No.: 50334358

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **50334358001** | **Upper Pond 1** | Solid | 12/21/22 09:03 | 12/27/22 10:15 |
| **50334358002** | **Upper Pond 2** | Solid | 12/21/22 09:12 | 12/27/22 10:15 |
| **50334358003** | **Upper Pond 3** | Solid | 12/21/22 09:20 | 12/27/22 10:15 |
| **50334358004** | **Upper Pond 4** | Solid | 12/21/22 09:32 | 12/27/22 10:15 |
| **50334358005** | **Upper Pond 5** | Solid | 12/21/22 09:40 | 12/27/22 10:15 |
| **50334358006** | **Lower Pond 1** | Solid | 12/21/22 10:20 | 12/27/22 10:15 |
| **50334358007** | **Lower Pond 2** | Solid | 12/21/22 10:27 | 12/27/22 10:15 |
| **50334358008** | **Lower Pond 3** | Solid | 12/21/22 10:40 | 12/27/22 10:15 |
| **50334358009** | **Lower Pond 4** | Solid | 12/21/22 10:48 | 12/27/22 10:15 |
| **50334358010** | **Lower Pond 5** | Solid | 12/21/22 11:00 | 12/27/22 10:15 |

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

## SAMPLE ANALYTE COUNT

Project: Miller Showers Sediment
Pace Project No.: 50334358

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **50334358001** | **Upper Pond 1** | EPA 8082 | CPH | 8 | PASI-I |
| | | EPA 6010 | DJS | 7 | PASI-I |
| | | EPA 7471 | ILP | 1 | PASI-I |
| | | SM 2540G | QAK | 1 | PASI-I |
| **50334358002** | **Upper Pond 2** | EPA 8082 | CPH | 8 | PASI-I |
| | | EPA 6010 | DJS | 7 | PASI-I |
| | | EPA 7471 | ILP | 1 | PASI-I |
| | | SM 2540G | QAK | 1 | PASI-I |
| **50334358003** | **Upper Pond 3** | EPA 8082 | CPH | 8 | PASI-I |
| | | EPA 6010 | DJS | 7 | PASI-I |
| | | EPA 7471 | ILP | 1 | PASI-I |
| | | SM 2540G | QAK | 1 | PASI-I |
| **50334358004** | **Upper Pond 4** | EPA 8082 | CPH | 8 | PASI-I |
| | | EPA 6010 | DJS | 7 | PASI-I |
| | | EPA 7471 | ILP | 1 | PASI-I |
| | | SM 2540G | QAK | 1 | PASI-I |
| **50334358005** | **Upper Pond 5** | EPA 8082 | CPH | 8 | PASI-I |
| | | EPA 6010 | DJS | 7 | PASI-I |
| | | EPA 7471 | ILP | 1 | PASI-I |
| | | SM 2540G | QAK | 1 | PASI-I |
| **50334358006** | **Lower Pond 1** | EPA 8082 | CPH | 8 | PASI-I |
| | | EPA 6010 | DJS | 7 | PASI-I |
| | | EPA 7471 | ILP | 1 | PASI-I |
| | | SM 2540G | QAK | 1 | PASI-I |
| **50334358007** | **Lower Pond 2** | EPA 8082 | CPH | 8 | PASI-I |
| | | EPA 6010 | DJS | 7 | PASI-I |
| | | EPA 7471 | ILP | 1 | PASI-I |
| | | SM 2540G | QAK | 1 | PASI-I |
| **50334358008** | **Lower Pond 3** | EPA 8082 | CPH | 8 | PASI-I |
| | | EPA 6010 | DJS | 7 | PASI-I |
| | | EPA 7471 | ILP | 1 | PASI-I |
| | | SM 2540G | QAK | 1 | PASI-I |
| **50334358009** | **Lower Pond 4** | EPA 8082 | CPH | 8 | PASI-I |
| | | EPA 6010 | DJS | 7 | PASI-I |
| | | EPA 7471 | ILP | 1 | PASI-I |
| | | SM 2540G | QAK | 1 | PASI-I |
| **50334358010** | **Lower Pond 5** | EPA 8082 | CPH | 8 | PASI-I |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

## SAMPLE ANALYTE COUNT

Project: Miller Showers Sediment
Pace Project No.: 50334358

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| | | EPA 6010 | DJS | 7 | PASI-I |
| | | EPA 7471 | ILP | 1 | PASI-I |
| | | SM 2540G | QAK | 1 | PASI-I |

PASI-I = Pace Analytical Services - Indianapolis

**Pace Analytical Services, LLC**
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

## ANALYTICAL RESULTS

Project: Miller Showers Sediment
Pace Project No.: 50334358

**Sample: Upper Pond 1** **Lab ID: 50334358001** Collected: 12/21/22 09:03 Received: 12/27/22 10:15 Matrix: Solid

***Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.***

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8082 PCB Solids** | Analytical Method: EPA 8082 Preparation Method: EPA 3546<br>Pace Analytical Services - Indianapolis | | | | | | | |
| PCB-1016 (Aroclor 1016) | ND | mg/kg | 0.33 | 1 | 12/30/22 10:34 | 01/04/23 23:50 | 12674-11-2 | |
| PCB-1221 (Aroclor 1221) | ND | mg/kg | 0.33 | 1 | 12/30/22 10:34 | 01/04/23 23:50 | 11104-28-2 | |
| PCB-1232 (Aroclor 1232) | ND | mg/kg | 0.33 | 1 | 12/30/22 10:34 | 01/04/23 23:50 | 11141-16-5 | |
| PCB-1242 (Aroclor 1242) | ND | mg/kg | 0.33 | 1 | 12/30/22 10:34 | 01/04/23 23:50 | 53469-21-9 | |
| PCB-1248 (Aroclor 1248) | ND | mg/kg | 0.33 | 1 | 12/30/22 10:34 | 01/04/23 23:50 | 12672-29-6 | |
| PCB-1254 (Aroclor 1254) | ND | mg/kg | 0.33 | 1 | 12/30/22 10:34 | 01/04/23 23:50 | 11097-69-1 | |
| PCB-1260 (Aroclor 1260) | ND | mg/kg | 0.33 | 1 | 12/30/22 10:34 | 01/04/23 23:50 | 11096-82-5 | |
| ***Surrogates*** | | | | | | | | |
| Tetrachloro-m-xylene (S) | 62 | %. | 36-112 | 1 | 12/30/22 10:34 | 01/04/23 23:50 | 877-09-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Arsenic | **9.3** | mg/kg | 3.2 | 1 | 01/05/23 08:28 | 01/09/23 13:59 | 7440-38-2 | |
| Barium | **95.4** | mg/kg | 3.2 | 1 | 01/05/23 08:28 | 01/09/23 13:59 | 7440-39-3 | |
| Cadmium | ND | mg/kg | 1.6 | 1 | 01/05/23 08:28 | 01/09/23 13:59 | 7440-43-9 | |
| Chromium | **26.0** | mg/kg | 3.2 | 1 | 01/05/23 08:28 | 01/09/23 13:59 | 7440-47-3 | |
| Lead | **47.4** | mg/kg | 3.2 | 1 | 01/05/23 08:28 | 01/09/23 13:59 | 7439-92-1 | |
| Selenium | ND | mg/kg | 3.2 | 1 | 01/05/23 08:28 | 01/09/23 13:59 | 7782-49-2 | |
| Silver | ND | mg/kg | 1.6 | 1 | 01/05/23 08:28 | 01/09/23 13:59 | 7440-22-4 | |
| **7471 Mercury** | Analytical Method: EPA 7471 Preparation Method: EPA 7471<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Mercury | ND | mg/kg | 0.74 | 1 | 01/06/23 12:10 | 01/09/23 08:19 | 7439-97-6 | |
| **Percent Moisture** | Analytical Method: SM 2540G<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Percent Moisture | **71.5** | % | 0.10 | 1 | | 12/29/22 10:01 | | N2 |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

## ANALYTICAL RESULTS

Project: Miller Showers Sediment
Pace Project No.: 50334358

**Sample: Upper Pond 2** **Lab ID: 50334358002** Collected: 12/21/22 09:12 Received: 12/27/22 10:15 Matrix: Solid

***Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.***

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8082 PCB Solids** | Analytical Method: EPA 8082 Preparation Method: EPA 3546<br>Pace Analytical Services - Indianapolis | | | | | | | |
| PCB-1016 (Aroclor 1016) | ND | mg/kg | 0.24 | 1 | 12/30/22 10:34 | 01/05/23 00:05 | 12674-11-2 | |
| PCB-1221 (Aroclor 1221) | ND | mg/kg | 0.24 | 1 | 12/30/22 10:34 | 01/05/23 00:05 | 11104-28-2 | |
| PCB-1232 (Aroclor 1232) | ND | mg/kg | 0.24 | 1 | 12/30/22 10:34 | 01/05/23 00:05 | 11141-16-5 | |
| PCB-1242 (Aroclor 1242) | ND | mg/kg | 0.24 | 1 | 12/30/22 10:34 | 01/05/23 00:05 | 53469-21-9 | |
| PCB-1248 (Aroclor 1248) | ND | mg/kg | 0.24 | 1 | 12/30/22 10:34 | 01/05/23 00:05 | 12672-29-6 | |
| PCB-1254 (Aroclor 1254) | ND | mg/kg | 0.24 | 1 | 12/30/22 10:34 | 01/05/23 00:05 | 11097-69-1 | |
| PCB-1260 (Aroclor 1260) | ND | mg/kg | 0.24 | 1 | 12/30/22 10:34 | 01/05/23 00:05 | 11096-82-5 | |
| ***Surrogates*** | | | | | | | | |
| Tetrachloro-m-xylene (S) | 72 | %. | 36-112 | 1 | 12/30/22 10:34 | 01/05/23 00:05 | 877-09-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Arsenic | **11.0** | mg/kg | 2.2 | 1 | 01/05/23 08:28 | 01/09/23 14:01 | 7440-38-2 | |
| Barium | **115** | mg/kg | 2.2 | 1 | 01/05/23 08:28 | 01/09/23 14:01 | 7440-39-3 | |
| Cadmium | **1.4** | mg/kg | 1.1 | 1 | 01/05/23 08:28 | 01/09/23 14:01 | 7440-43-9 | |
| Chromium | **30.9** | mg/kg | 2.2 | 1 | 01/05/23 08:28 | 01/09/23 14:01 | 7440-47-3 | |
| Lead | **57.6** | mg/kg | 2.2 | 1 | 01/05/23 08:28 | 01/09/23 14:01 | 7439-92-1 | |
| Selenium | ND | mg/kg | 2.2 | 1 | 01/05/23 08:28 | 01/09/23 14:01 | 7782-49-2 | |
| Silver | ND | mg/kg | 1.1 | 1 | 01/05/23 08:28 | 01/09/23 14:01 | 7440-22-4 | |
| **7471 Mercury** | Analytical Method: EPA 7471 Preparation Method: EPA 7471<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Mercury | ND | mg/kg | 0.45 | 1 | 01/06/23 12:10 | 01/09/23 08:22 | 7439-97-6 | |
| **Percent Moisture** | Analytical Method: SM 2540G<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Percent Moisture | **58.4** | % | 0.10 | 1 | | 12/29/22 10:01 | | N2 |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

## ANALYTICAL RESULTS

Project: Miller Showers Sediment
Pace Project No.: 50334358

**Sample: Upper Pond 3** **Lab ID: 50334358003** Collected: 12/21/22 09:20 Received: 12/27/22 10:15 Matrix: Solid

***Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.***

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8082 PCB Solids** | Analytical Method: EPA 8082 Preparation Method: EPA 3546<br>Pace Analytical Services - Indianapolis | | | | | | | |
| PCB-1016 (Aroclor 1016) | ND | mg/kg | 0.26 | 1 | 12/30/22 10:34 | 01/05/23 00:21 | 12674-11-2 | |
| PCB-1221 (Aroclor 1221) | ND | mg/kg | 0.26 | 1 | 12/30/22 10:34 | 01/05/23 00:21 | 11104-28-2 | |
| PCB-1232 (Aroclor 1232) | ND | mg/kg | 0.26 | 1 | 12/30/22 10:34 | 01/05/23 00:21 | 11141-16-5 | |
| PCB-1242 (Aroclor 1242) | ND | mg/kg | 0.26 | 1 | 12/30/22 10:34 | 01/05/23 00:21 | 53469-21-9 | |
| PCB-1248 (Aroclor 1248) | ND | mg/kg | 0.26 | 1 | 12/30/22 10:34 | 01/05/23 00:21 | 12672-29-6 | |
| PCB-1254 (Aroclor 1254) | ND | mg/kg | 0.26 | 1 | 12/30/22 10:34 | 01/05/23 00:21 | 11097-69-1 | |
| PCB-1260 (Aroclor 1260) | ND | mg/kg | 0.26 | 1 | 12/30/22 10:34 | 01/05/23 00:21 | 11096-82-5 | |
| ***Surrogates*** | | | | | | | | |
| Tetrachloro-m-xylene (S) | 68 | %. | 36-112 | 1 | 12/30/22 10:34 | 01/05/23 00:21 | 877-09-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Arsenic | **4.1** | mg/kg | 2.6 | 1 | 01/05/23 08:28 | 01/09/23 14:09 | 7440-38-2 | |
| Barium | **49.7** | mg/kg | 2.6 | 1 | 01/05/23 08:28 | 01/09/23 14:09 | 7440-39-3 | |
| Cadmium | ND | mg/kg | 1.3 | 1 | 01/05/23 08:28 | 01/09/23 14:09 | 7440-43-9 | |
| Chromium | **11.7** | mg/kg | 2.6 | 1 | 01/05/23 08:28 | 01/09/23 14:09 | 7440-47-3 | |
| Lead | **18.1** | mg/kg | 2.6 | 1 | 01/05/23 08:28 | 01/09/23 14:09 | 7439-92-1 | |
| Selenium | ND | mg/kg | 2.6 | 1 | 01/05/23 08:28 | 01/09/23 14:09 | 7782-49-2 | |
| Silver | ND | mg/kg | 1.3 | 1 | 01/05/23 08:28 | 01/09/23 14:09 | 7440-22-4 | |
| **7471 Mercury** | Analytical Method: EPA 7471 Preparation Method: EPA 7471<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Mercury | ND | mg/kg | 0.57 | 1 | 01/06/23 12:10 | 01/09/23 08:24 | 7439-97-6 | |
| **Percent Moisture** | Analytical Method: SM 2540G<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Percent Moisture | **62.4** | % | 0.10 | 1 | | 12/29/22 10:01 | | N2 |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

## ANALYTICAL RESULTS

Project: Miller Showers Sediment
Pace Project No.: 50334358

**Sample: Upper Pond 4** **Lab ID: 50334358004** Collected: 12/21/22 09:32 Received: 12/27/22 10:15 Matrix: Solid

***Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.***

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8082 PCB Solids** | Analytical Method: EPA 8082 Preparation Method: EPA 3546<br>Pace Analytical Services - Indianapolis | | | | | | | |
| PCB-1016 (Aroclor 1016) | ND | mg/kg | 0.26 | 1 | 12/30/22 10:34 | 01/05/23 01:06 | 12674-11-2 | |
| PCB-1221 (Aroclor 1221) | ND | mg/kg | 0.26 | 1 | 12/30/22 10:34 | 01/05/23 01:06 | 11104-28-2 | |
| PCB-1232 (Aroclor 1232) | ND | mg/kg | 0.26 | 1 | 12/30/22 10:34 | 01/05/23 01:06 | 11141-16-5 | |
| PCB-1242 (Aroclor 1242) | ND | mg/kg | 0.26 | 1 | 12/30/22 10:34 | 01/05/23 01:06 | 53469-21-9 | |
| PCB-1248 (Aroclor 1248) | ND | mg/kg | 0.26 | 1 | 12/30/22 10:34 | 01/05/23 01:06 | 12672-29-6 | |
| PCB-1254 (Aroclor 1254) | ND | mg/kg | 0.26 | 1 | 12/30/22 10:34 | 01/05/23 01:06 | 11097-69-1 | |
| PCB-1260 (Aroclor 1260) | ND | mg/kg | 0.26 | 1 | 12/30/22 10:34 | 01/05/23 01:06 | 11096-82-5 | |
| ***Surrogates*** | | | | | | | | |
| Tetrachloro-m-xylene (S) | 74 | %. | 36-112 | 1 | 12/30/22 10:34 | 01/05/23 01:06 | 877-09-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Arsenic | **7.1** | mg/kg | 2.4 | 1 | 01/05/23 08:28 | 01/09/23 14:12 | 7440-38-2 | |
| Barium | **108** | mg/kg | 2.4 | 1 | 01/05/23 08:28 | 01/09/23 14:12 | 7440-39-3 | |
| Cadmium | **1.4** | mg/kg | 1.2 | 1 | 01/05/23 08:28 | 01/09/23 14:12 | 7440-43-9 | |
| Chromium | **29.0** | mg/kg | 2.4 | 1 | 01/05/23 08:28 | 01/09/23 14:12 | 7440-47-3 | |
| Lead | **66.9** | mg/kg | 2.4 | 1 | 01/05/23 08:28 | 01/09/23 14:12 | 7439-92-1 | |
| Selenium | ND | mg/kg | 2.4 | 1 | 01/05/23 08:28 | 01/09/23 14:12 | 7782-49-2 | |
| Silver | ND | mg/kg | 1.2 | 1 | 01/05/23 08:28 | 01/09/23 14:12 | 7440-22-4 | |
| **7471 Mercury** | Analytical Method: EPA 7471 Preparation Method: EPA 7471<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Mercury | ND | mg/kg | 0.53 | 1 | 01/06/23 12:10 | 01/09/23 08:27 | 7439-97-6 | |
| **Percent Moisture** | Analytical Method: SM 2540G<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Percent Moisture | **63.2** | % | 0.10 | 1 | | 12/29/22 10:02 | | N2 |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

## ANALYTICAL RESULTS

Project: Miller Showers Sediment
Pace Project No.: 50334358

**Sample: Upper Pond 5** **Lab ID: 50334358005** Collected: 12/21/22 09:40 Received: 12/27/22 10:15 Matrix: Solid

***Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.***

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8082 PCB Solids** | Analytical Method: EPA 8082 Preparation Method: EPA 3546<br>Pace Analytical Services - Indianapolis | | | | | | | |
| PCB-1016 (Aroclor 1016) | ND | mg/kg | 0.47 | 1 | 12/30/22 10:34 | 01/05/23 01:21 | 12674-11-2 | |
| PCB-1221 (Aroclor 1221) | ND | mg/kg | 0.47 | 1 | 12/30/22 10:34 | 01/05/23 01:21 | 11104-28-2 | |
| PCB-1232 (Aroclor 1232) | ND | mg/kg | 0.47 | 1 | 12/30/22 10:34 | 01/05/23 01:21 | 11141-16-5 | |
| PCB-1242 (Aroclor 1242) | ND | mg/kg | 0.47 | 1 | 12/30/22 10:34 | 01/05/23 01:21 | 53469-21-9 | |
| PCB-1248 (Aroclor 1248) | ND | mg/kg | 0.47 | 1 | 12/30/22 10:34 | 01/05/23 01:21 | 12672-29-6 | |
| PCB-1254 (Aroclor 1254) | ND | mg/kg | 0.47 | 1 | 12/30/22 10:34 | 01/05/23 01:21 | 11097-69-1 | |
| PCB-1260 (Aroclor 1260) | ND | mg/kg | 0.47 | 1 | 12/30/22 10:34 | 01/05/23 01:21 | 11096-82-5 | |
| ***Surrogates*** | | | | | | | | |
| Tetrachloro-m-xylene (S) | 48 | %. | 36-112 | 1 | 12/30/22 10:34 | 01/05/23 01:21 | 877-09-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Arsenic | **7.8** | mg/kg | 4.5 | 1 | 01/05/23 08:28 | 01/09/23 14:14 | 7440-38-2 | |
| Barium | **114** | mg/kg | 4.5 | 1 | 01/05/23 08:28 | 01/09/23 14:14 | 7440-39-3 | |
| Cadmium | ND | mg/kg | 2.2 | 1 | 01/05/23 08:28 | 01/09/23 14:14 | 7440-43-9 | |
| Chromium | **27.8** | mg/kg | 4.5 | 1 | 01/05/23 08:28 | 01/09/23 14:14 | 7440-47-3 | |
| Lead | **57.0** | mg/kg | 4.5 | 1 | 01/05/23 08:28 | 01/09/23 14:14 | 7439-92-1 | |
| Selenium | ND | mg/kg | 4.5 | 1 | 01/05/23 08:28 | 01/09/23 14:14 | 7782-49-2 | |
| Silver | ND | mg/kg | 2.2 | 1 | 01/05/23 08:28 | 01/09/23 14:14 | 7440-22-4 | |
| **7471 Mercury** | Analytical Method: EPA 7471 Preparation Method: EPA 7471<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Mercury | ND | mg/kg | 1.0 | 1 | 01/06/23 12:10 | 01/09/23 08:29 | 7439-97-6 | |
| **Percent Moisture** | Analytical Method: SM 2540G<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Percent Moisture | **78.7** | % | 0.10 | 1 | | 12/29/22 10:02 | | N2 |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

## ANALYTICAL RESULTS

Project: Miller Showers Sediment
Pace Project No.: 50334358

**Sample: Lower Pond 1** **Lab ID: 50334358006** Collected: 12/21/22 10:20 Received: 12/27/22 10:15 Matrix: Solid

***Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.***

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8082 PCB Solids** | Analytical Method: EPA 8082 Preparation Method: EPA 3546<br>Pace Analytical Services - Indianapolis | | | | | | | |
| PCB-1016 (Aroclor 1016) | ND | mg/kg | 0.31 | 1 | 12/30/22 10:34 | 01/05/23 01:36 | 12674-11-2 | |
| PCB-1221 (Aroclor 1221) | ND | mg/kg | 0.31 | 1 | 12/30/22 10:34 | 01/05/23 01:36 | 11104-28-2 | |
| PCB-1232 (Aroclor 1232) | ND | mg/kg | 0.31 | 1 | 12/30/22 10:34 | 01/05/23 01:36 | 11141-16-5 | |
| PCB-1242 (Aroclor 1242) | ND | mg/kg | 0.31 | 1 | 12/30/22 10:34 | 01/05/23 01:36 | 53469-21-9 | |
| PCB-1248 (Aroclor 1248) | ND | mg/kg | 0.31 | 1 | 12/30/22 10:34 | 01/05/23 01:36 | 12672-29-6 | |
| PCB-1254 (Aroclor 1254) | ND | mg/kg | 0.31 | 1 | 12/30/22 10:34 | 01/05/23 01:36 | 11097-69-1 | |
| PCB-1260 (Aroclor 1260) | ND | mg/kg | 0.31 | 1 | 12/30/22 10:34 | 01/05/23 01:36 | 11096-82-5 | |
| ***Surrogates*** | | | | | | | | |
| Tetrachloro-m-xylene (S) | 43 | %. | 36-112 | 1 | 12/30/22 10:34 | 01/05/23 01:36 | 877-09-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Arsenic | **8.2** | mg/kg | 2.9 | 1 | 01/05/23 08:28 | 01/09/23 14:17 | 7440-38-2 | |
| Barium | **123** | mg/kg | 2.9 | 1 | 01/05/23 08:28 | 01/09/23 14:17 | 7440-39-3 | |
| Cadmium | ND | mg/kg | 1.4 | 1 | 01/05/23 08:28 | 01/09/23 14:17 | 7440-43-9 | |
| Chromium | **27.3** | mg/kg | 2.9 | 1 | 01/05/23 08:28 | 01/09/23 14:17 | 7440-47-3 | |
| Lead | **44.4** | mg/kg | 2.9 | 1 | 01/05/23 08:28 | 01/09/23 14:17 | 7439-92-1 | |
| Selenium | ND | mg/kg | 2.9 | 1 | 01/05/23 08:28 | 01/09/23 14:17 | 7782-49-2 | |
| Silver | ND | mg/kg | 1.4 | 1 | 01/05/23 08:28 | 01/09/23 14:17 | 7440-22-4 | |
| **7471 Mercury** | Analytical Method: EPA 7471 Preparation Method: EPA 7471<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Mercury | ND | mg/kg | 0.61 | 1 | 01/06/23 12:10 | 01/09/23 08:32 | 7439-97-6 | |
| **Percent Moisture** | Analytical Method: SM 2540G<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Percent Moisture | **69.4** | % | 0.10 | 1 | | 12/29/22 10:02 | | N2 |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

## ANALYTICAL RESULTS

Project: Miller Showers Sediment
Pace Project No.: 50334358

**Sample: Lower Pond 2** **Lab ID: 50334358007** Collected: 12/21/22 10:27 Received: 12/27/22 10:15 Matrix: Solid

***Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.***

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8082 PCB Solids** | Analytical Method: EPA 8082 Preparation Method: EPA 3546<br>Pace Analytical Services - Indianapolis | | | | | | | |
| PCB-1016 (Aroclor 1016) | ND | mg/kg | 0.30 | 1 | 12/30/22 10:34 | 01/05/23 01:51 | 12674-11-2 | |
| PCB-1221 (Aroclor 1221) | ND | mg/kg | 0.30 | 1 | 12/30/22 10:34 | 01/05/23 01:51 | 11104-28-2 | |
| PCB-1232 (Aroclor 1232) | ND | mg/kg | 0.30 | 1 | 12/30/22 10:34 | 01/05/23 01:51 | 11141-16-5 | |
| PCB-1242 (Aroclor 1242) | ND | mg/kg | 0.30 | 1 | 12/30/22 10:34 | 01/05/23 01:51 | 53469-21-9 | |
| PCB-1248 (Aroclor 1248) | ND | mg/kg | 0.30 | 1 | 12/30/22 10:34 | 01/05/23 01:51 | 12672-29-6 | |
| PCB-1254 (Aroclor 1254) | ND | mg/kg | 0.30 | 1 | 12/30/22 10:34 | 01/05/23 01:51 | 11097-69-1 | |
| PCB-1260 (Aroclor 1260) | ND | mg/kg | 0.30 | 1 | 12/30/22 10:34 | 01/05/23 01:51 | 11096-82-5 | |
| ***Surrogates*** | | | | | | | | |
| Tetrachloro-m-xylene (S) | 57 | %. | 36-112 | 1 | 12/30/22 10:34 | 01/05/23 01:51 | 877-09-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Arsenic | **11.4** | mg/kg | 2.7 | 1 | 01/05/23 08:28 | 01/09/23 14:20 | 7440-38-2 | |
| Barium | **137** | mg/kg | 2.7 | 1 | 01/05/23 08:28 | 01/09/23 14:20 | 7440-39-3 | |
| Cadmium | ND | mg/kg | 1.3 | 1 | 01/05/23 08:28 | 01/09/23 14:20 | 7440-43-9 | |
| Chromium | **33.2** | mg/kg | 2.7 | 1 | 01/05/23 08:28 | 01/09/23 14:20 | 7440-47-3 | |
| Lead | **37.6** | mg/kg | 2.7 | 1 | 01/05/23 08:28 | 01/09/23 14:20 | 7439-92-1 | |
| Selenium | ND | mg/kg | 2.7 | 1 | 01/05/23 08:28 | 01/09/23 14:20 | 7782-49-2 | |
| Silver | ND | mg/kg | 1.3 | 1 | 01/05/23 08:28 | 01/09/23 14:20 | 7440-22-4 | |
| **7471 Mercury** | Analytical Method: EPA 7471 Preparation Method: EPA 7471<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Mercury | ND | mg/kg | 0.60 | 1 | 01/06/23 12:10 | 01/09/23 08:34 | 7439-97-6 | |
| **Percent Moisture** | Analytical Method: SM 2540G<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Percent Moisture | **67.8** | % | 0.10 | 1 | | 12/29/22 10:02 | | N2 |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

## ANALYTICAL RESULTS

Project: Miller Showers Sediment
Pace Project No.: 50334358

**Sample: Lower Pond 3** **Lab ID: 50334358008** Collected: 12/21/22 10:40 Received: 12/27/22 10:15 Matrix: Solid

***Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.***

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8082 PCB Solids** | Analytical Method: EPA 8082 Preparation Method: EPA 3546<br>Pace Analytical Services - Indianapolis | | | | | | | |
| PCB-1016 (Aroclor 1016) | ND | mg/kg | 0.24 | 1 | 12/30/22 10:34 | 01/05/23 02:06 | 12674-11-2 | |
| PCB-1221 (Aroclor 1221) | ND | mg/kg | 0.24 | 1 | 12/30/22 10:34 | 01/05/23 02:06 | 11104-28-2 | |
| PCB-1232 (Aroclor 1232) | ND | mg/kg | 0.24 | 1 | 12/30/22 10:34 | 01/05/23 02:06 | 11141-16-5 | |
| PCB-1242 (Aroclor 1242) | ND | mg/kg | 0.24 | 1 | 12/30/22 10:34 | 01/05/23 02:06 | 53469-21-9 | |
| PCB-1248 (Aroclor 1248) | ND | mg/kg | 0.24 | 1 | 12/30/22 10:34 | 01/05/23 02:06 | 12672-29-6 | |
| PCB-1254 (Aroclor 1254) | ND | mg/kg | 0.24 | 1 | 12/30/22 10:34 | 01/05/23 02:06 | 11097-69-1 | |
| PCB-1260 (Aroclor 1260) | ND | mg/kg | 0.24 | 1 | 12/30/22 10:34 | 01/05/23 02:06 | 11096-82-5 | |
| ***Surrogates*** | | | | | | | | |
| Tetrachloro-m-xylene (S) | 70 | %. | 36-112 | 1 | 12/30/22 10:34 | 01/05/23 02:06 | 877-09-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Arsenic | **6.9** | mg/kg | 2.3 | 1 | 01/05/23 08:28 | 01/09/23 14:22 | 7440-38-2 | |
| Barium | **92.6** | mg/kg | 2.3 | 1 | 01/05/23 08:28 | 01/09/23 14:22 | 7440-39-3 | |
| Cadmium | ND | mg/kg | 1.1 | 1 | 01/05/23 08:28 | 01/09/23 14:22 | 7440-43-9 | |
| Chromium | **22.3** | mg/kg | 2.3 | 1 | 01/05/23 08:28 | 01/09/23 14:22 | 7440-47-3 | |
| Lead | **33.6** | mg/kg | 2.3 | 1 | 01/05/23 08:28 | 01/09/23 14:22 | 7439-92-1 | |
| Selenium | ND | mg/kg | 2.3 | 1 | 01/05/23 08:28 | 01/09/23 14:22 | 7782-49-2 | |
| Silver | ND | mg/kg | 1.1 | 1 | 01/05/23 08:28 | 01/09/23 14:22 | 7440-22-4 | |
| **7471 Mercury** | Analytical Method: EPA 7471 Preparation Method: EPA 7471<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Mercury | ND | mg/kg | 0.51 | 1 | 01/06/23 12:10 | 01/09/23 08:37 | 7439-97-6 | |
| **Percent Moisture** | Analytical Method: SM 2540G<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Percent Moisture | **58.0** | % | 0.10 | 1 | | 12/29/22 10:02 | | N2 |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

## ANALYTICAL RESULTS

Project: Miller Showers Sediment
Pace Project No.: 50334358

**Sample: Lower Pond 4** **Lab ID: 50334358009** Collected: 12/21/22 10:48 Received: 12/27/22 10:15 Matrix: Solid

***Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.***

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8082 PCB Solids** | Analytical Method: EPA 8082 Preparation Method: EPA 3546<br>Pace Analytical Services - Indianapolis | | | | | | | |
| PCB-1016 (Aroclor 1016) | ND | mg/kg | 0.28 | 1 | 12/30/22 10:34 | 01/05/23 02:21 | 12674-11-2 | |
| PCB-1221 (Aroclor 1221) | ND | mg/kg | 0.28 | 1 | 12/30/22 10:34 | 01/05/23 02:21 | 11104-28-2 | |
| PCB-1232 (Aroclor 1232) | ND | mg/kg | 0.28 | 1 | 12/30/22 10:34 | 01/05/23 02:21 | 11141-16-5 | |
| PCB-1242 (Aroclor 1242) | ND | mg/kg | 0.28 | 1 | 12/30/22 10:34 | 01/05/23 02:21 | 53469-21-9 | |
| PCB-1248 (Aroclor 1248) | ND | mg/kg | 0.28 | 1 | 12/30/22 10:34 | 01/05/23 02:21 | 12672-29-6 | |
| PCB-1254 (Aroclor 1254) | ND | mg/kg | 0.28 | 1 | 12/30/22 10:34 | 01/05/23 02:21 | 11097-69-1 | |
| PCB-1260 (Aroclor 1260) | ND | mg/kg | 0.28 | 1 | 12/30/22 10:34 | 01/05/23 02:21 | 11096-82-5 | |
| ***Surrogates*** | | | | | | | | |
| Tetrachloro-m-xylene (S) | 68 | %. | 36-112 | 1 | 12/30/22 10:34 | 01/05/23 02:21 | 877-09-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Arsenic | **12.0** | mg/kg | 2.7 | 1 | 01/05/23 08:28 | 01/09/23 14:25 | 7440-38-2 | |
| Barium | **132** | mg/kg | 2.7 | 1 | 01/05/23 08:28 | 01/09/23 14:25 | 7440-39-3 | |
| Cadmium | ND | mg/kg | 1.3 | 1 | 01/05/23 08:28 | 01/09/23 14:25 | 7440-43-9 | |
| Chromium | **37.2** | mg/kg | 2.7 | 1 | 01/05/23 08:28 | 01/09/23 14:25 | 7440-47-3 | |
| Lead | **48.6** | mg/kg | 2.7 | 1 | 01/05/23 08:28 | 01/09/23 14:25 | 7439-92-1 | |
| Selenium | ND | mg/kg | 2.7 | 1 | 01/05/23 08:28 | 01/09/23 14:25 | 7782-49-2 | |
| Silver | ND | mg/kg | 1.3 | 1 | 01/05/23 08:28 | 01/09/23 14:25 | 7440-22-4 | |
| **7471 Mercury** | Analytical Method: EPA 7471 Preparation Method: EPA 7471<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Mercury | ND | mg/kg | 0.57 | 1 | 01/06/23 12:10 | 01/09/23 08:39 | 7439-97-6 | |
| **Percent Moisture** | Analytical Method: SM 2540G<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Percent Moisture | **64.9** | % | 0.10 | 1 | | 12/29/22 10:02 | | N2 |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

## ANALYTICAL RESULTS

Project: Miller Showers Sediment
Pace Project No.: 50334358

**Sample: Lower Pond 5** **Lab ID: 50334358010** Collected: 12/21/22 11:00 Received: 12/27/22 10:15 Matrix: Solid

***Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.***

| Parameters | Results | Units | Report Limit | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|
| **8082 PCB Solids** | Analytical Method: EPA 8082 Preparation Method: EPA 3546<br>Pace Analytical Services - Indianapolis | | | | | | | |
| PCB-1016 (Aroclor 1016) | ND | mg/kg | 0.27 | 1 | 12/30/22 10:34 | 01/05/23 02:36 | 12674-11-2 | |
| PCB-1221 (Aroclor 1221) | ND | mg/kg | 0.27 | 1 | 12/30/22 10:34 | 01/05/23 02:36 | 11104-28-2 | |
| PCB-1232 (Aroclor 1232) | ND | mg/kg | 0.27 | 1 | 12/30/22 10:34 | 01/05/23 02:36 | 11141-16-5 | |
| PCB-1242 (Aroclor 1242) | ND | mg/kg | 0.27 | 1 | 12/30/22 10:34 | 01/05/23 02:36 | 53469-21-9 | |
| PCB-1248 (Aroclor 1248) | ND | mg/kg | 0.27 | 1 | 12/30/22 10:34 | 01/05/23 02:36 | 12672-29-6 | |
| PCB-1254 (Aroclor 1254) | ND | mg/kg | 0.27 | 1 | 12/30/22 10:34 | 01/05/23 02:36 | 11097-69-1 | |
| PCB-1260 (Aroclor 1260) | ND | mg/kg | 0.27 | 1 | 12/30/22 10:34 | 01/05/23 02:36 | 11096-82-5 | |
| ***Surrogates*** | | | | | | | | |
| Tetrachloro-m-xylene (S) | 65 | %. | 36-112 | 1 | 12/30/22 10:34 | 01/05/23 02:36 | 877-09-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Arsenic | **7.8** | mg/kg | 2.4 | 1 | 01/05/23 08:28 | 01/09/23 14:28 | 7440-38-2 | |
| Barium | **97.7** | mg/kg | 2.4 | 1 | 01/05/23 08:28 | 01/09/23 14:28 | 7440-39-3 | |
| Cadmium | ND | mg/kg | 1.2 | 1 | 01/05/23 08:28 | 01/09/23 14:28 | 7440-43-9 | |
| Chromium | **24.4** | mg/kg | 2.4 | 1 | 01/05/23 08:28 | 01/09/23 14:28 | 7440-47-3 | |
| Lead | **27.0** | mg/kg | 2.4 | 1 | 01/05/23 08:28 | 01/09/23 14:28 | 7439-92-1 | |
| Selenium | ND | mg/kg | 2.4 | 1 | 01/05/23 08:28 | 01/09/23 14:28 | 7782-49-2 | |
| Silver | ND | mg/kg | 1.2 | 1 | 01/05/23 08:28 | 01/09/23 14:28 | 7440-22-4 | |
| **7471 Mercury** | Analytical Method: EPA 7471 Preparation Method: EPA 7471<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Mercury | ND | mg/kg | 0.53 | 1 | 01/06/23 12:10 | 01/09/23 08:49 | 7439-97-6 | |
| **Percent Moisture** | Analytical Method: SM 2540G<br>Pace Analytical Services - Indianapolis | | | | | | | |
| Percent Moisture | **64.3** | % | 0.10 | 1 | | 12/29/22 10:02 | | N2 |

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

## QUALITY CONTROL DATA

Project: Miller Showers Sediment
Pace Project No.: 50334358

QC Batch: 713684
QC Batch Method: EPA 7471
Analysis Method: EPA 7471
Analysis Description: 7471 Mercury
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50334358001, 50334358002, 50334358003, 50334358004, 50334358005, 50334358006, 50334358007, 50334358008, 50334358009, 50334358010

METHOD BLANK: 3278989 Matrix: Solid
Associated Lab Samples: 50334358001, 50334358002, 50334358003, 50334358004, 50334358005, 50334358006, 50334358007, 50334358008, 50334358009, 50334358010

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Mercury | mg/kg | ND | 0.20 | 01/09/23 07:48 | |

LABORATORY CONTROL SAMPLE: 3278990

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Mercury | mg/kg | 0.5 | 0.49 | 98 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3278991 3278992

| Parameter | Units | 50334259001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | mg/kg | ND | 0.7 | 0.68 | 0.83 | 0.77 | 100 | 96 | 75-125 | 8 | 20 | |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

## REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

## QUALITY CONTROL DATA

Project: Miller Showers Sediment
Pace Project No.: 50334358

QC Batch: 713217
QC Batch Method: EPA 3050
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50334358001, 50334358002, 50334358003, 50334358004, 50334358005, 50334358006, 50334358007, 50334358008, 50334358009, 50334358010

METHOD BLANK: 3277367 Matrix: Solid
Associated Lab Samples: 50334358001, 50334358002, 50334358003, 50334358004, 50334358005, 50334358006, 50334358007, 50334358008, 50334358009, 50334358010

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Arsenic | mg/kg | ND | 1.0 | 01/09/23 11:09 | |
| Barium | mg/kg | ND | 1.0 | 01/09/23 11:09 | |
| Cadmium | mg/kg | ND | 0.50 | 01/09/23 11:09 | |
| Chromium | mg/kg | ND | 1.0 | 01/09/23 11:09 | |
| Lead | mg/kg | ND | 1.0 | 01/09/23 11:09 | |
| Selenium | mg/kg | ND | 1.0 | 01/09/23 11:09 | |
| Silver | mg/kg | ND | 0.50 | 01/09/23 11:09 | |

LABORATORY CONTROL SAMPLE: 3277368

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Arsenic | mg/kg | 50 | 52.3 | 105 | 80-120 | |
| Barium | mg/kg | 50 | 50.2 | 100 | 80-120 | |
| Cadmium | mg/kg | 50 | 50.2 | 100 | 80-120 | |
| Chromium | mg/kg | 50 | 51.6 | 103 | 80-120 | |
| Lead | mg/kg | 50 | 48.0 | 96 | 80-120 | |
| Selenium | mg/kg | 50 | 51.6 | 103 | 80-120 | |
| Silver | mg/kg | 25 | 25.1 | 100 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3277369 3277370

| Parameter | Units | 50334259001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Arsenic | mg/kg | 26.3 | 61.9 | 64.1 | 84.1 | 90.5 | 93 | 100 | 75-125 | 7 | 20 | |
| Barium | mg/kg | 72.6 | 61.9 | 64.1 | 134 | 147 | 99 | 116 | 75-125 | 10 | 20 | |
| Cadmium | mg/kg | 1.4 | 61.9 | 64.1 | 56.0 | 59.4 | 88 | 90 | 75-125 | 6 | 20 | |
| Chromium | mg/kg | 15.9 | 61.9 | 64.1 | 75.9 | 80.1 | 97 | 100 | 75-125 | 5 | 20 | |
| Lead | mg/kg | 184 | 61.9 | 64.1 | 200 | 211 | 25 | 41 | 75-125 | 6 | 20 | M3 |
| Selenium | mg/kg | ND | 61.9 | 64.1 | 56.2 | 58.9 | 89 | 90 | 75-125 | 5 | 20 | |
| Silver | mg/kg | ND | 31 | 32.1 | 27.3 | 29.1 | 87 | 90 | 75-125 | 6 | 20 | |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

## QUALITY CONTROL DATA

Project: Miller Showers Sediment
Pace Project No.: 50334358

QC Batch: 713089
QC Batch Method: EPA 3546
Analysis Method: EPA 8082
Analysis Description: 8082 PCB Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50334358001, 50334358002, 50334358003, 50334358004, 50334358005, 50334358006, 50334358007, 50334358008, 50334358009, 50334358010

METHOD BLANK: 3276723 Matrix: Solid
Associated Lab Samples: 50334358001, 50334358002, 50334358003, 50334358004, 50334358005, 50334358006, 50334358007, 50334358008, 50334358009, 50334358010

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| PCB-1016 (Aroclor 1016) | mg/kg | ND | 0.097 | 01/05/23 11:13 | |
| PCB-1221 (Aroclor 1221) | mg/kg | ND | 0.097 | 01/05/23 11:13 | |
| PCB-1232 (Aroclor 1232) | mg/kg | ND | 0.097 | 01/05/23 11:13 | |
| PCB-1242 (Aroclor 1242) | mg/kg | ND | 0.097 | 01/05/23 11:13 | |
| PCB-1248 (Aroclor 1248) | mg/kg | ND | 0.097 | 01/05/23 11:13 | |
| PCB-1254 (Aroclor 1254) | mg/kg | ND | 0.097 | 01/05/23 11:13 | |
| PCB-1260 (Aroclor 1260) | mg/kg | ND | 0.097 | 01/05/23 11:13 | |
| Tetrachloro-m-xylene (S) | %. | 96 | 36-112 | 01/05/23 11:13 | |

LABORATORY CONTROL SAMPLE: 3276724

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| PCB-1016 (Aroclor 1016) | mg/kg | 0.33 | 0.28 | 87 | 52-128 | |
| PCB-1260 (Aroclor 1260) | mg/kg | 0.33 | 0.30 | 90 | 30-128 | |
| Tetrachloro-m-xylene (S) | %. | | | 89 | 36-112 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3276725 3276726

| Parameter | Units | 50334358003 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PCB-1016 (Aroclor 1016) | mg/kg | ND | 0.85 | 0.85 | 0.35 | 0.45 | 41 | 53 | 10-150 | 24 | 20 | R1 |
| PCB-1260 (Aroclor 1260) | mg/kg | ND | 0.85 | 0.85 | 0.35 | 0.40 | 41 | 47 | 10-140 | 13 | 20 | |
| Tetrachloro-m-xylene (S) | %. | | | | | | 58 | 59 | 36-112 | | | |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

## QUALITY CONTROL DATA

Project: Miller Showers Sediment
Pace Project No.: 50334358

QC Batch: 712918
QC Batch Method: SM 2540G
Analysis Method: SM 2540G
Analysis Description: Dry Weight/Percent Moisture
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50334358001, 50334358002, 50334358003, 50334358004, 50334358005, 50334358006, 50334358007, 50334358008, 50334358009, 50334358010

SAMPLE DUPLICATE: 3276163

| Parameter | Units | 50334259001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 26.2 | 27.9 | 6 | 5 | N2,R1 |

SAMPLE DUPLICATE: 3276164

| Parameter | Units | 50334358010 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 64.3 | 67.7 | 5 | 5 | N2 |

**Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.**

## REPORT OF LABORATORY ANALYSIS

**Pace Analytical Services, LLC**
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

# QUALIFIERS

Project: Miller Showers Sediment
Pace Project No.: 50334358

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

## ANALYTE QUALIFIERS

| | |
|---|---|
| M3 | Matrix spike recovery was outside laboratory control limits due to matrix interferences. |
| N2 | The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request. |
| R1 | RPD value was outside control limits. |

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

# QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Miller Showers Sediment
Pace Project No.: 50334358

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **50334358001** | **Upper Pond 1** | EPA 3546 | 713089 | EPA 8082 | 713162 |
| **50334358002** | **Upper Pond 2** | EPA 3546 | 713089 | EPA 8082 | 713162 |
| **50334358003** | **Upper Pond 3** | EPA 3546 | 713089 | EPA 8082 | 713162 |
| **50334358004** | **Upper Pond 4** | EPA 3546 | 713089 | EPA 8082 | 713162 |
| **50334358005** | **Upper Pond 5** | EPA 3546 | 713089 | EPA 8082 | 713162 |
| **50334358006** | **Lower Pond 1** | EPA 3546 | 713089 | EPA 8082 | 713162 |
| **50334358007** | **Lower Pond 2** | EPA 3546 | 713089 | EPA 8082 | 713162 |
| **50334358008** | **Lower Pond 3** | EPA 3546 | 713089 | EPA 8082 | 713162 |
| **50334358009** | **Lower Pond 4** | EPA 3546 | 713089 | EPA 8082 | 713162 |
| **50334358010** | **Lower Pond 5** | EPA 3546 | 713089 | EPA 8082 | 713162 |
| **50334358001** | **Upper Pond 1** | EPA 3050 | 713217 | EPA 6010 | 713883 |
| **50334358002** | **Upper Pond 2** | EPA 3050 | 713217 | EPA 6010 | 713883 |
| **50334358003** | **Upper Pond 3** | EPA 3050 | 713217 | EPA 6010 | 713883 |
| **50334358004** | **Upper Pond 4** | EPA 3050 | 713217 | EPA 6010 | 713883 |
| **50334358005** | **Upper Pond 5** | EPA 3050 | 713217 | EPA 6010 | 713883 |
| **50334358006** | **Lower Pond 1** | EPA 3050 | 713217 | EPA 6010 | 713883 |
| **50334358007** | **Lower Pond 2** | EPA 3050 | 713217 | EPA 6010 | 713883 |
| **50334358008** | **Lower Pond 3** | EPA 3050 | 713217 | EPA 6010 | 713883 |
| **50334358009** | **Lower Pond 4** | EPA 3050 | 713217 | EPA 6010 | 713883 |
| **50334358010** | **Lower Pond 5** | EPA 3050 | 713217 | EPA 6010 | 713883 |
| **50334358001** | **Upper Pond 1** | EPA 7471 | 713684 | EPA 7471 | 713870 |
| **50334358002** | **Upper Pond 2** | EPA 7471 | 713684 | EPA 7471 | 713870 |
| **50334358003** | **Upper Pond 3** | EPA 7471 | 713684 | EPA 7471 | 713870 |
| **50334358004** | **Upper Pond 4** | EPA 7471 | 713684 | EPA 7471 | 713870 |
| **50334358005** | **Upper Pond 5** | EPA 7471 | 713684 | EPA 7471 | 713870 |
| **50334358006** | **Lower Pond 1** | EPA 7471 | 713684 | EPA 7471 | 713870 |
| **50334358007** | **Lower Pond 2** | EPA 7471 | 713684 | EPA 7471 | 713870 |
| **50334358008** | **Lower Pond 3** | EPA 7471 | 713684 | EPA 7471 | 713870 |
| **50334358009** | **Lower Pond 4** | EPA 7471 | 713684 | EPA 7471 | 713870 |
| **50334358010** | **Lower Pond 5** | EPA 7471 | 713684 | EPA 7471 | 713870 |
| **50334358001** | **Upper Pond 1** | SM 2540G | 712918 | | |
| **50334358002** | **Upper Pond 2** | SM 2540G | 712918 | | |
| **50334358003** | **Upper Pond 3** | SM 2540G | 712918 | | |
| **50334358004** | **Upper Pond 4** | SM 2540G | 712918 | | |
| **50334358005** | **Upper Pond 5** | SM 2540G | 712918 | | |
| **50334358006** | **Lower Pond 1** | SM 2540G | 712918 | | |
| **50334358007** | **Lower Pond 2** | SM 2540G | 712918 | | |
| **50334358008** | **Lower Pond 3** | SM 2540G | 712918 | | |
| **50334358009** | **Lower Pond 4** | SM 2540G | 712918 | | |
| **50334358010** | **Lower Pond 5** | SM 2540G | 712918 | | |

# CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

50334358

ALL SHADED AREAS are for LAB USE ONLY

| | |
|---|---|
| Company: City of Bloomington Utilities | Billing Information: |
| Address: 600 E Miller Dr. Bloomington, IN 47401 | |
| Report To: Katherine Zaiger | Email To: Katherine.zaiger@bloomington.in.gov |
| Copy To: | Site Collection Info/Address: |
| Customer Project Name/Number: Miller Showers Sediment | State: IN County/City: Bloomington Time Zone Collected: [ ] PT [ ] MT [ ] CT [X] ET |
| Phone: Email: | Site/Facility ID #: Compliance Monitoring? [ ] Yes [ ] No |
| Collected By (print): Carson Swafford | Purchase Order #: ENV22-329 Quote #: DW PWS ID #: DW Location Code: |
| Collected By (signature): Carson Swafford | Turnaround Date Required: Immediately Packed on Ice: [X] Yes [ ] No |
| Sample Disposal: [X] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____ | Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) | Field Filtered (if applicable): [ ] Yes [ ] No Analysis: _____ |

Container Preservative Type **: U U

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

| Customer Sample ID | Matrix * | Comp / Grab | Collected (or Composite Start) Date | Collected (or Composite Start) Time | Composite End Date | Composite End Time | Res Cl | # of Ctns | Analyses: Method 6010 (Metals) | Analyses: Method 8082 (PCBs) | Lab Profile/Line: |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Upper Pond 1 | SL | Grab | 12/21/22 | 9:03A | | | | 1 | X | X | 001 |
| Upper Pond 2 | SL | Grab | 12/21/22 | 9:12A | | | | 1 | X | X | 002 |
| Upper Pond 3 | SL | Grab | 12/21/22 | 9:20A | | | | 1 | X | X | 003 |
| Upper Pond 4 | SL | Grab | 12/21/22 | 9:32A | | | | 1 | X | X | 004 |
| Upper Pond 5 | SL | Grab | 12/21/22 | 9:40A | | | | 1 | X | X | 005 |
| Lower Pond 1 | SL | Grab | 12/21/22 | 10:20A | | | | 1 | X | X | 006 |
| Lower Pond 2 | SL | Grab | 12/21/22 | 10:27A | | | | 1 | X | X | 007 |
| Lower Pond 3 | SL | Grab | 12/21/22 | 10:40A | | | | 1 | X | X | 008 |
| Lower Pond 4 | SL | Grab | 12/21/22 | 10:48A | | | | 1 | X | X | 009 |
| Lower Pond 5 | SL | Grab | 12/21/22 | 11:00A | | | | 1 | X | X | 010 |

Lab Profile/Line:

Lab Sample Receipt Checklist:

| | |
|---|---|
| Custody Seals Present/Intact | Y N NA |
| Custody Signatures Present | Y N NA |
| Collector Signature Present | Y N NA |
| Bottles Intact | Y N NA |
| Correct Bottles | Y N NA |
| Sufficient Volume | Y N NA |
| Samples Received on Ice | Y N NA |
| VOA - Headspace Acceptable | Y N NA |
| USDA Regulated Soils | Y N NA |
| Samples in Holding Time | Y N NA |
| Residual Chlorine Present | Y N NA |
| Cl Strips: _____ | |
| Sample pH Acceptable | Y N NA |
| pH Strips: _____ | |
| Sulfide Present | Y N NA |
| Lead Acetate Strips: _____ | |

LAB USE ONLY:
Lab Sample # / Comments:

see scyr

Customer Remarks / Special Conditions / Possible Hazards: Metals - RCRA8

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #:

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y (N) NA
Therm ID#: 1
Cooler 1 Temp Upon Receipt: 5.8 oC
Cooler 1 Therm Corr. Factor: 0 oC
Cooler 1 Corrected Temp: 5.8 oC
Comments:

| | | | |
|---|---|---|---|
| Relinquished by/Company: (Signature) Carson Swafford | Date/Time: 12/22/22 12:40pm | Received by/Company: (Signature) CBL | Date/Time: 12/22/22 12:40 |
| Relinquished by/Company: (Signature) UPS | Date/Time: 12/22/22 | Received by/Company: (Signature) | Date/Time: 12/27/22 10:15 |
| Relinquished by/Company: (Signature) | Date/Time: | Received by/Company: (Signature) | Date/Time: |

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: _____ of: _____

# SAMPLE CONDITION UPON RECEIPT FORM

**Date/Time and Initials of person examining contents:** 12/27/22 12:56 JG

1. **Courier:** ☐ FED EX ☑ UPS ☐ CLIENT ☐ PACE ☐ USPS ☐ OTHER _____

2. **Custody Seal on Cooler/Box Present:** ☐ Yes ☐ No

**(If yes)Seals Intact:** ☐ Yes ☐ No **(leave blank if no seals were present)**

3. **Thermometer:** (1) 2 3 4 5 6 A B C D E F

4. **Cooler Temperature(s):** 5.8/5.8 | | | |
**(Initial/Corrected)** RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other Styrofoam

6. **Ice Type:** ☑ Wet ☐ Blue ☐ None

7. **If temp. is over 6°C or under 0°C, was the PM notified?:** ☐ Yes ☐ No
Cooler temp should be above freezing to 6°C

**All discrepancies will be written out in the comments section below.**

| | Yes | No | | Yes | No | N/A |
|---|---|---|---|---|---|---|
| **USDA Regulated Soils?** (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico) | | — | All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** **Circle:** **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form | | | |
| **Short Hold Time Analysis (48 hours or less)? Analysis:** | | — | | | | — |
| **Time 5035A TC placed in Freezer or Short Holds To Lab** | Time: | | | Present | Absent | N/A |
| | | | Residual Chlorine Check (SVOC 625 Pest/PCB 608) | | | — |
| **Rush TAT Requested (4 days or less):** | | — | Residual Chlorine Check (Total/Amenable/Free Cyanide) | | | — |
| Custody Signatures Present? | — | | Headspace Wisconsin Sulfide? | | | — |
| Containers Intact?: | — | | Headspace in VOA Vials (>6mm): See Containter Count form for details | Present | Absent | No VOA Vials Sent — |
| Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID | — | | Trip Blank Present? | | — | |
| Extra labels on Terracore Vials? (soils only) | | — | Trip Blank Custody Seals?: | | | — |

COMMENTS: Cap on WGFV for sample Lower Pond 2 is cracked, no signs of spills JG 12/27/22

**COC PAGE ____ of ____**

## Sample Container Count

** Place a RED dot on containers that are out of conformance **

| | | MeOH (only) / SBS / DI | VIALS | | | | | AMBER GLASS | | | | | | | PLASTIC | | | | | | | | | OTHER | | | | | Nitric | Sulfuric | Sodium Hydroxide | Sodium Hydroxide/ ZnAc |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Red | Yellow | Green | Black |
| COC Line Item | WGFU | R | DG9H VG9H | VOA VIAL HS (>6mm) | VG9U | DG9U | VG9T | AG0U | AG1H | AG1U | AG2U | AG3S | AG3SF | AG3C | BP1U | BP1N | BP2U | BP3U | BP3N | BP3F | BP3S | BP3B | BP3Z | CG3H | CG3F | Syringe Kit | WGKU | Matrix | HNO3 <2 | H2SO4 <2 | NaOH >10 | NaOH/Zn Ac >9 |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | SL | | | | |
| 2 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | |
| 7 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | |
| 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Container Codes

## Glass

| | | | | | |
|---|---|---|---|---|---|
| DG9H | 40mL HCl amber voa vial | BG1T | 1L Na Thiosulfate clear glass | BP1B | 1L NaOH plastic |
| DG9P | 40mL TSP amber vial | BG1U | 1L unpreserved glass | BP1N | 1L HNO3 plastic |
| DG9S | 40mL H2SO4 amber vial | BG3H | 250mL HCl Clear Glass | BP1S | 1L H2SO4 plastic |
| DG9T | 40mL Na Thio amber vial | BG3U | 250mL Unpres Clear Glass | BP1U | 1L unpreserved plastic |
| DG9U | 40mL unpreserved amber vial | AG0U | 100mL unpres amber glass | BP1Z | 1L NaOH, Zn, Ac |
| VG9H | 40mL HCl clear vial | AG1H | 1L HCl amber glass | BP2N | 500mL HNO3 plastic |
| VG9T | 40mL Na Thio. clear vial | AG1S | 1L H2SO4 amber glass | BP2C | 500mL NaOH plastic |
| VG9U | 40mL unpreserved clear vial | AG1T | 1L Na Thiosulfate amber glass | BP2S | 500mL H2SO4 plastic |
| I | 40mL w/hexane wipe vial | AG1U | 1liter unpres amber glass | BP2U | 500mL unpreserved plastic |
| WGKU | 8oz unpreserved clear jar | AG2N | 500mL HNO3 amber glass | BP2Z | 500mL NaOH, Zn Ac |
| WGFU | 4oz clear soil jar | AG2S | 500mL H2SO4 amber glass | BP3B | 250mL NaOH plastic |
| JGFU | 4oz unpreserved amber wide | AG2U | 500mL unpres amber glass | BP3N | 250mL HNO3 plastic |
| CG3H | 250mL clear glass HCl | AG3S | 250mL H2SO4 amber glass | BP3F | 250mL HNO3 plastic-field filtered |
| CG3F | 250mL clear glass HCl, Field Filter | AG3SF | 250mL H2SO4 amb glass -field filtered | BP3U | 250mL unpreserved plastic |
| BG1H | 1L HCl clear glass | AG3U | 250mL unpres amber glass | BP3S | 250mL H2SO4 plastic |
| BG1S | 1L H2SO4 clear glass | AG3C | 250mL NaOH amber glass | BP3Z | 250mL NaOH, ZnAc plastic |

## Plastic

| | |
|---|---|
| BP4U | 125mL unpreserved plastic |
| BP4N | 125mL HNO3 plastic |
| BP4S | 125mL H2SO4 plastic |

## Miscellaneous

| | |
|---|---|
| Syringe Kit | LL Cr+6 sampling kit |
| ZPLC | Ziploc Bag |
| R | Terracore Kit |
| SP5T | 120mL Coliform Sodium Thiosulfate |
| GN | General Container |
| U | Summa Can (air sample) |
| WT | Water |
| SL | Solid Solid |
| OL: | Oil |
| NAL | Non-aqueous liquid |
| WP | Wipe |

# Exhibit D

N COLLEGE AVE

N WALNUT ST

W 17TH ST

Miller Showers Park

202

1405

1409

1601

1800

1600

104

NORMAL POOL = 735.0
WSEL 25-YR = 736.73
WSEL 100-YR = 736.93

NORMAL POOL = 741.5
WSEL 25-YR = 741.61
WSEL 100-YR = 736.93

NORMAL POOL = 743.0
WSEL 25-YR = 744.63
WSEL 100-YR = 744.80

NORMAL POOL = 746.0
WSEL 25-YR = 747.48
WSEL 100-YR = 747.70

NORMAL POOL = 749.0
WSEL 25-YR = 750.37
WSEL 100-YR = 750.67

PLAN SCALE
1" = 30'

CITY OF BLOOMINGTON
AS BUILT DRAWINGS
PROJECT Miller Showers Park
DATE 9.5.02 Axsom

Miller-Showers Park
Sanitary Sewer
on GIS, DLilley
29 Aug 2002
E28SW/S

N WALNUT ST

MH# W1
T.C. = 707.49
INV. N. = 693.12
INV. S. = 693.12
INV. E. = 693.45
INV. W. = 694.02
60" INSIDE DIA.

MH# W2
T.C. = 726.16
INV. W. = 715.28
INV. E. = 715.36

MH# W3
T.C. = 726.0
INV. W. = 715.71
INV. S. = 715.82

MH# W4
T.C. = 727.7
INV. N. = 718.13
INV. S. = 718.23

MH # W5
T.C. = 729.50
INV(n) = 722.20
INV(s) = 722.30

MH# W6
T.C. = 734.25
INV(n) = 725.21
INV(e) = 727.83
INV(s) = 728.13

STR # 1105
STR # 1106
STR # 1101

Old Manhole - Gone -

Sanitary Lateral For 2038 N. Walnut St.

76' OF 20" DIP @ 29.1%
49' OF 18" SDR-35 @ 0.71%
129' OF 18" SDR-35 @ 1.31%
356' OF 18" SDR-35 @ 1.12%
312' OF 18" SDR-35 @ 0.93%

CITY OF BLOOMINGTON
AS BUILT DRAWINGS
PROJECT Miller Showers Park
DATE 9 5 02 Axsom

Miller - Showers Park
Sanitary Sewer
on GIS, Dtaway
29 Aug 2002
E28 SW/S

PLAN SCALE
1" = 30'

N COLLEGE AVE

N WALNUT ST

N OLD SR 37

1717

1919

1720

1722

1800

2038

Parkview Apts.

304' OF 8" SDR-35 @ 1.55%
313'

263' OF 8" SDR-35 @ 1.6%
245'

315' OF 12" SDR-35 @ 1.22%

106' OF 12" SDR-35 @ 1.0%

280' OF 18" SDR-35 @ 1.1%

215' OF 18" SDR-35 @ 1.1%

202' OF 8" SDR-35 @ 2.50%

MH # C-8
#9985

MH # C-7
T.C. = 731
INV (n) = 726.90
INV (e) = 727.10
#9984

MH # C-6
T.C. = 730
INV (nw) = 719.42
INV (se) = 719.22
#1649

MH # C-5
T.C. = 730
INV (nw) = 722.71
INV (se) = 722.51
#9983

MH # WB
T.C. = 735.00
INV(n) = 730.25
INV(e) = 730.05
#1000

MH # W9
T.C. = 736.2
INV(n) = 732.39
INV(e) = 732.49
INV(s) = 732.69
#1001

MH # W10
T.C. = 743.2
INV(n) = 738.63
INV(e) = 739.83

MH # 2699
T.C. = 746.34
INV = 737.59

MH # 746.3
INV(n) = 734.33
INV(e) = 734.63
INV(s) = 734.53
#1002

MH # 2698
T.C. = 739.55
INV(n) = 734.64
INV(e) = 735.28 (proposed)
INV(s) = 735.38 (proposed)
INV(nw) = 733.11 (proposed)
#1003

MH # 748.0
T.C. = 748.0
INV(w) = 739.68
#1004

MH # 2694
T.C. = 725.21
INV(n) = 725.83
INV(e) = 726.13
#2694

STR # 810
STR # 809
STR # 808
STR # 907
STR # 906
STR # 905
STR # 904
STR # 903
STR # 902
STR # 901
STR # 1105
STR # 1104
STR # 1103
STR # 1102
STR # 1101
STR # 1108
STR # 1110
STR # 1112
STR # 1111
STR # 1109
STR # 1107
STR # 1106
STR # 1001
STR # 1002-A
STR # 1002
STR # 1003
STR # 1004
STR # 1005-A
STR # 1005
STR # 1006
STR # 802
STR # 803
STR # 804
STR # 805
STR # A01

735.0
736.73
736.93

736.16

CITY OF BLOOMINGTON
AS BUILT DRAWINGS
PROJECT Miller Showers Park
DATE 9.5.02 Axiom

Miller-Showers Park
Sanitary Sewer
as G.P.S. Data by
29 Aug 2002
E28 SW/S

N COLLEGE AVE

N OLD SR 37

N WALNUT ST

1919

1717

1720

1722

1800

2038

La charreada

Parkview Apts.

PLAN SCALE
1" = 30'

PLAN SCALE
1" = 30'

304' OF 8" SDR-35 @ 1.55%

253' OF 8" SDR-35 @ 1.6%

315' OF 12" SDR-35 @ 1.27%

106' OF 12" SDR-35 @ 1.5%

184' OF 18" SDR-35 @ 1.1%

220' OF 18" SDR-35 @ 1.1%

225' OF 18" SDR-35 @ 0.41%

202' OF 8" SDR-35 @ 2.50%

MH # C-5
T.C. = 730
INV (nw) = 719.22
INV (se) = 719.42

MH # C-6
T.C. = 730
INV (nw) = 728.71
INV (s) = 722.91

MH # C-7
T.C. = 731
INV (n) = 726.90
INV (s) = 727.10

MH # WB
T.C. = 735.00
INV(n) = 730.25
INV(e) = 730.55

MH # WB-2
T.C. = 736.2
INV(n) = 732.39
INV(e) = 732.49
INV(s) = 732.85

MH # WB-3
T.C. = 736.2
INV(n) = 732.63
INV(e) = 732.63
INV(s) = 732.83

MH # 2698
T.C. = 739.55
INV(n) = 734.64
INV(e) = 732.63 (existing)
INV(s) = 732.88
INV(w) = 733.11 (proposed)

MH # 2699
T.C. = 742.34
INV = 737.59

MH # 2700
T.C. = 736.53
INV(n) = 736.63
INV(e) = 739.63

MH # 1001
T.C. = 734.25
INV(n) = 725.21
INV(e) = 728.13
INV(s) = 728.13

MH # 1002
T.C. = 748.5
INV(n) = 734.53
INV(e) = 734.63
INV(s) = 734.53

MH # 1003
T.C. = 739.55
INV(n) = 734.64
INV(e) = 732.63 (existing)
INV(s) = 732.88
INV(w) = 733.11 (proposed)

MH # 1004
T.C. = 748.5
INV(n) = 734.53
INV(e) = 734.63
INV(s) = 734.53

MH # 1005
T.C. = 748.0
INV(w) = 739.68

#1004

#1003

#1002

#1005

#2700

#2699

736.16

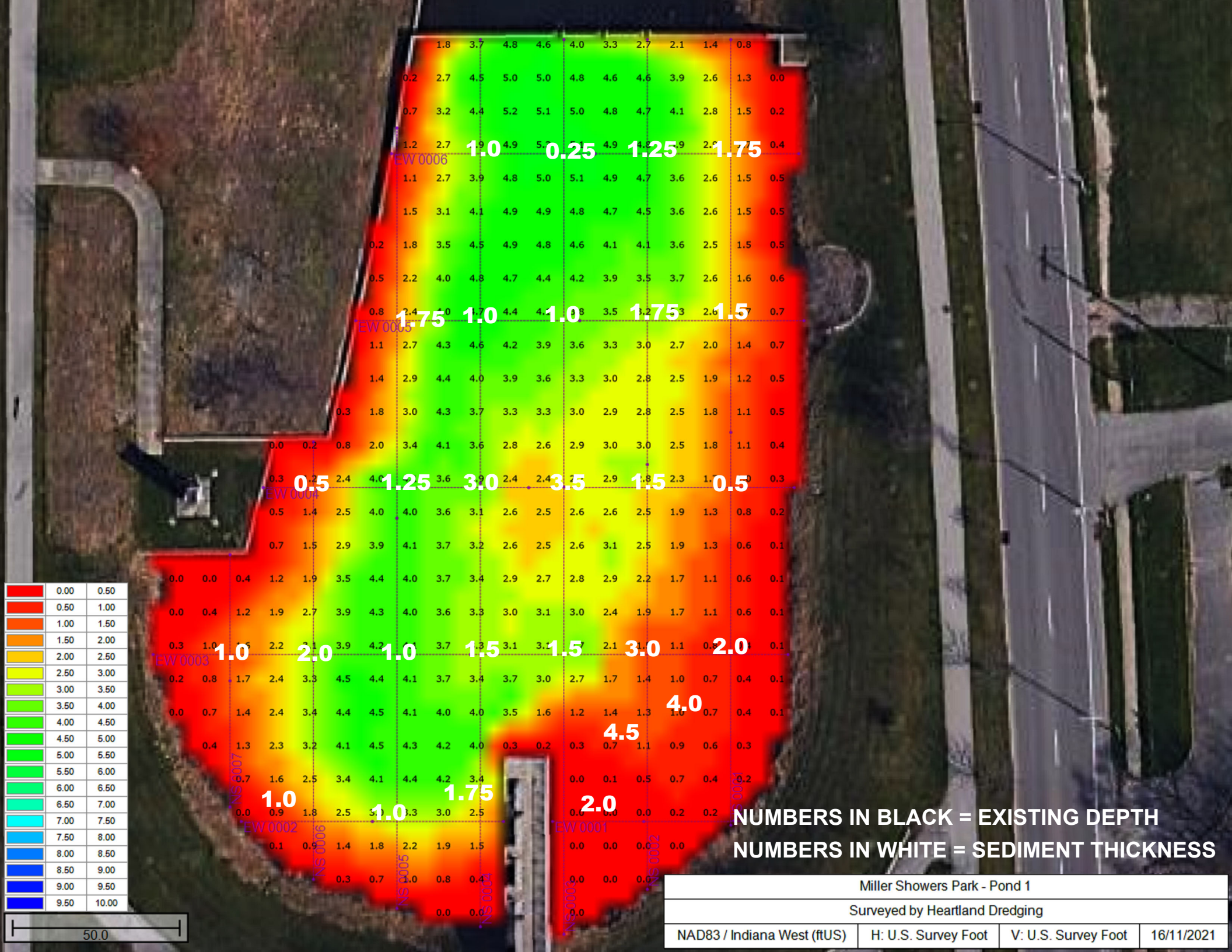
735.0
736.73
736.93

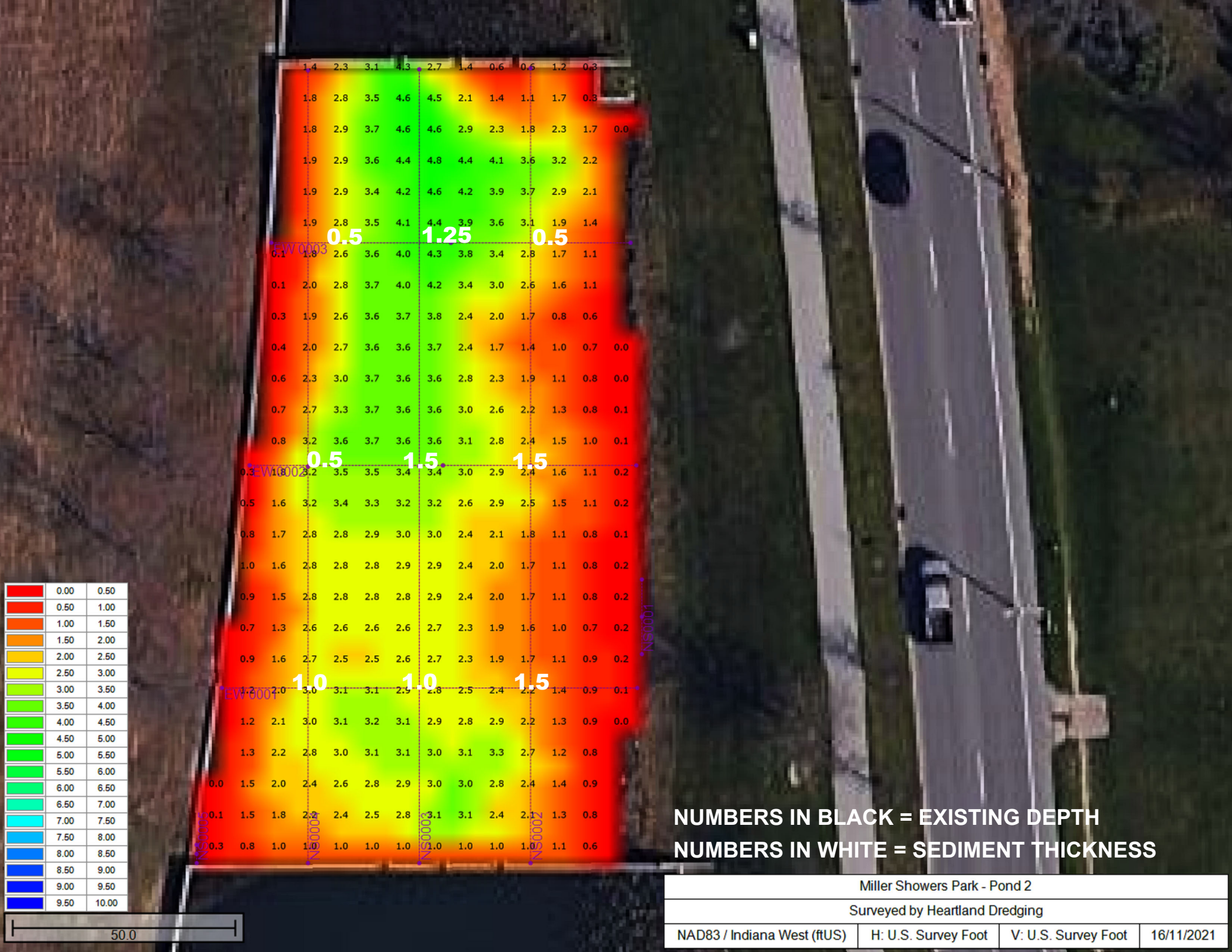
STR # 910
STR # 909
STR # 908
STR # 907
STR # 906
STR # 905
STR # 904
STR # 903
STR # 902
STR # 901
STR # 1105
STR # 1101
STR # 1102
STR # 1103
STR # 1104
STR # 1106
STR # 1107
STR # 1108
STR # 1109
STR # 1110
STR # 1111
STR # 1112
STR # 1001
STR # 1002
STR # 1002-A
STR # 1003
STR # 1004
STR # 1005
STR # 1006
STR # 1005-A
STR # 801
STR # 802
STR # 803
STR # 804
STR # 805

CITY OF BLOOMINGTON
AS BUILT DRAWINGS
PROJECT Miller Showers Park
DATE 9.5.02 Assoc

Miller Showers Park
Sanitary Sewer
as Gil, D L Gray
29 Aug 2002
E2 & SW/S

# Exhibit E


EW 0006
EW 0005
EW 0004
EW 0003
EW 0002
EW 0001
NS 0007
NS 0006
NS 0005
NS 0004
NS 0003
NS 0002
NS 0001
1.0 0.25 1.25 1.75
1.75 1.0 1.0 1.75 1.5
0.5 1.25 3.0 3.5 1.5 0.5
1.0 2.0 1.0 1.5 1.5 3.0 2.0
4.0
4.5
1.0 1.75 1.0 2.0
0.00 0.50
0.50 1.00
1.00 1.50
1.50 2.00
2.00 2.50
2.50 3.00
3.00 3.50
3.50 4.00
4.00 4.50
4.50 5.00
5.00 5.50
5.50 6.00
6.00 6.50
6.50 7.00
7.00 7.50
7.50 8.00
8.00 8.50
8.50 9.00
9.00 9.50
9.50 10.00
50.0
NUMBERS IN BLACK = EXISTING DEPTH
NUMBERS IN WHITE = SEDIMENT THICKNESS
Miller Showers Park - Pond 1
Surveyed by Heartland Dredging
NAD83 / Indiana West (ftUS)
H: U.S. Survey Foot
V: U.S. Survey Foot
16/11/2021


0.5
1.25
0.5
0.5
1.5
1.5
1.0
1.0
1.5
EW 0003
EW 0002
EW 0001
NS0005
NS0004
NS0003
NS0002
NS0001
0.00 0.50
0.50 1.00
1.00 1.50
1.50 2.00
2.00 2.50
2.50 3.00
3.00 3.50
3.50 4.00
4.00 4.50
4.50 5.00
5.00 5.50
5.50 6.00
6.00 6.50
6.50 7.00
7.00 7.50
7.50 8.00
8.00 8.50
8.50 9.00
9.00 9.50
9.50 10.00
50.0
NUMBERS IN BLACK = EXISTING DEPTH
NUMBERS IN WHITE = SEDIMENT THICKNESS
Miller Showers Park - Pond 2
Surveyed by Heartland Dredging
NAD83 / Indiana West (ftUS)
H: U.S. Survey Foot
V: U.S. Survey Foot
16/11/2021