

OTTAWA COUNTY BROWNFIELD REDEVELOPMENT AUTHORITY

Agenda for Thursday, January 18, 2024 | 3:30pm | Conference Room E

12220 Fillmore Street, West Olive MI 49460

1. Call to order
2. Roll call
3. Approval of the agenda for the January 18, 2024 meeting
4. Approval of the minutes from the October 19, 2023 meeting
5. Correspondence and communications - none
6. Budget report
7. Old business - none
8. New business

A. Organizational Action Item – Election of Officers, Article IV of OCBRA Bylaws

Motion: To nominate _____ as Chair, _____ as Vice-Chair,
_____ as Secretary, and _____ as Treasurer.

All officers, legislative, executive and judicial, before entering upon the duties of their respective offices, shall take and subscribe the following oath or affirmation:

I do solemnly swear (or affirm) that I will support the Constitution of the United States and the constitution of this state, and that I will faithfully discharge the duties of the office of according to the best of my ability. No other oath, affirmation, or any religious test shall be required as a qualification for any office or public trust.

B. Brownfield Incentive Program Committee (3 members)

Motion: To appoint _____, _____, and _____ to the 2024 Brownfield Incentive Program Committee

C. Assessment assistance request – Brownfield Incentive Program – Park Township Airport

Proposed motion: To approve financial support from Brownfield Incentive Program not to exceed \$5,000 toward capping contaminated portions of the Park Township Airport with topsoil and turf.

9. Public comment
10. Other business/discussion/updates

A. 2024 Meeting Schedule

11. Adjournment

**OTTAWA COUNTY
BROWNFIELD REDEVELOPMENT AUTHORITY UNAPPROVED MINUTES**

The Ottawa County Brownfield Redevelopment Authority met Thursday, October 19, 2023, at 3:30 p.m. in Conference Room E at the Fillmore Administrative Complex and was called to order at 3:33 p.m. by Mr. Brugger.

Present at roll call: Rebecca Hopp, Ken Brune, Roger Belknap, Josh Brugger, John Gibbs (5)

Absent at roll call: Amanda Price, Kirk Perschbacher, Garry Post, James Bleicher (4)

Staff & Guests: Becky Huttenga, Strategic Impact (virtual); Katelyn Bard, Clerk/Register of Deeds;

BRA 23-020 Ms. Hopp moved to approve the agenda for the October 19, 2023 meeting. The motion passed.

BRA 23-021 Mr. Brune moved to approve the minutes from the September 21, 2023 meeting. The motion passed.

Correspondence and Communication - None

Committee Reports – None

Budget Report – None

Old Business – None

New Business –

A. Budget Amendment

BRA 23-022 Motion:

1. Mr. Belknap moved to amend the Fiscal Year 2023 budget to increase revenue by \$7,913 and increase expenses by \$7,913. YEAS: Mr. Brugger, Mr. Brune, Mr. Belknap, Mr. Gibbs, Ms. Hopp (5); NEAS: none (0); ABSTAINED: (0); ABSENT: Mr. Bleicher, Mr. Post, Mr. Perschbacher, Ms. Price (4). The motion passed.

Adjournment: The meeting was adjourned by Mr. Brugger at 3:48 p.m.

Brownfield Redevelopment Authority

Object	Budget	Actuals	Description/Narrative		
402010	82,521	0.00	Current Property Taxes		
				<i>Budget</i>	<i>Actuals</i>
			Borculo/ZFS	14,129	0.00
			Best	18,812	0.00
			Epicurean Village	42,609	0.00
			Gull Lake Marine	6,971	0.00
			Total	82,521	0.00
501000	0	0.00	Federal Grants		None Currently
541000	0	0.00	State Grant: Program		None Currently
580000	4,100	0.00	Local Contributions		
				<i>Budget</i>	<i>Actuals</i>
			BIP	4,100	0.00
			Total	4,100	0.00
626000	5,844	0.00	Services Rendered		
				<i>Budget</i>	<i>Actuals</i>
			Borculo/ZFS	744	0.00
			Best	990	0.00
			Epicurean Village	2,243	0.00
			Gull Lake Marine	367	0.00
			Application Fee (Future Project)	1,500	0.00
			Total	5,844	0.00
665000	0	0.00	Interest on Investments		
				<i>Budget</i>	<i>Actuals</i>
			Interest Allocation	189	0.00
			Total	189	0.00

Brownfield Redevelopment Authority

Object	Budget	Actuals	Description/Narrative	
674000	0	0.00	Private Contributions & Donations	None Currently
690000	0	0.00	Other Financing Sources	None Currently
702000	0	0.00	Regular Wages Benefitted	
				<i>Budget</i> <i>Actuals</i>
			Staff Salary	0.00 0.00
			Total	0 0.00
710000	0	1,228.63	Fringes	
				<i>Budget</i> <i>Actuals</i>
			Staff Fringes	0.00 1228.63
			Total	0 1,228.63
727000	0	0.00	Office Supplies	
				<i>Budget</i> <i>Actuals</i>
			Office Supplies	0 0.00
			Total	0 0.00
808000	86,622.00	0.00	Service Contracts	
				<i>Budget</i> <i>Actuals</i>
			Consultants/Contracted Services	0.00 0.00
			Borculo/ZFS	13,010 0.00
			SET (Borculo/ZFS)	1,120 0.00
			GLM North (Gull)	6,971 0.00
			Epicurean Village	42,609 0.00
			SET (Best)	1,213 0.00
			EGLE (Best)	17,599 0.00
			BIP (Admin Transfer to BIP)	4,100 0.00
			Total	86,622.00 0.00

Brownfield Redevelopment Authority

Object	Budget	Actuals	Description/Narrative		
860000	50	0.00	Travel Mileage		
				<i>Budget</i>	<i>Actuals</i>
			Mileage	50	0.00
			Total	50	0.00
862000	0	0.00	Travel Not Mileage		
				<i>Budget</i>	<i>Actuals</i>
			Professional Development	0	0.00
			Total	0	0.00
956000	0	0.00	Conference & Training Reg Fee		
				<i>Budget</i>	<i>Actuals</i>
			Professional Development	0	0.00
			Total	0	0.00
967010	25,500	8,500.00	Project Costs		
				<i>Budget</i>	<i>Actuals</i>
			Bob Jeff Hudsonville	6,800	0.00
			CL Real Estate	6,500	0.00
			Rosendall Land Holdings	8,500	8500.00
			Airpark	3,700	0.00
			Total	25,500	8500.00
Revenue	92,465	0.00			
Expense	112,172	9,728.63			
Balance	-19,707	-9,728.63			



Brownfield Incentive Program

--- Project Application ---

plan@miottawa.org | 616.738.4852 | miottawa.org/brownfields

Instructions for Applicant: To have an eligible project considered for an Incentive, please complete the form as thoroughly as possible. If you have questions regarding any of the requested information, please contact the Ottawa County Planning and Performance Improvement Department at 616-738-4852 or via e-mail at plan@miottawa.org.

Applicant Information

Applicant Name: _____ Date: _____

Category: Owner Tenant Purchaser Developer Other: _____

Address: _____

Contact Info: _____
Phone (office) _____ Phone (cell) _____

_____ Email _____

Eligibility: I have reviewed the BIP Eligibility Requirements and confirm that the project is eligible.

Property Information

Site Address: _____

Parcel ID#: _____ Acreage: _____

Current Site Owner: _____

Owner Contact Info: _____
Phone (office) _____ Phone (cell) _____

_____ Email _____

Current Zoning: _____

Site History and Current Use: _____

***Please provide copies of any available site maps**

Previous Environmental Activities Completed (if known)

- | | | | |
|---------------------------------------|--------------------------------------|--|----------------------------------|
| <input type="checkbox"/> Phase I ESA | <input type="checkbox"/> BEA | <input type="checkbox"/> Due Care Plan | <input type="checkbox"/> None |
| <input type="checkbox"/> Phase II ESA | <input type="checkbox"/> Remediation | <input type="checkbox"/> Other | <input type="checkbox"/> Unknown |

***Please provide copies of any available environmental reports**

Project Information

	Yes	No	Comments (Include on additional page if needed)
Is there suspected or confirmed contamination on the project site or on an adjacent site?			Arsenic Levels above direct contact criteria for Part 201 (residential). Chromium was also detected in some spots. See report.
Is the site blighted ⁱ or functionally obsolete ⁱⁱ ?			
Redevelopment potential – does the proposed project currently have:			
Developer commitment/purchase agreement and a redevelopment plan?			
Private funds secured for a portion of the project costs? Please estimate the percentage.			
Tax increment financing or other local/state incentives planned? Please provide details and timeline if known.			
Compliance with local zoning and land-use plans and/or support from the local unit of government?			
Plans to expand, relocate, or start a business?			
Economic benefits - is it likely that the proposed project will (provide detail under comments):			
Create permanent jobs within two years? (Please estimate total number)			
Increase tax base? (Please estimate dollar amount)			
Catalyze other redevelopment?			
Environmental benefits - is it likely that the proposed project will (provide detail under comments):			
Identify presence, type, and extent of contamination?			
Include remediation of contaminants?			
Reduce environmental health risks to the residents and workers?			
Community benefits - is it likely that the proposed project will (provide detail under comments):			
Provide attainable housing?			
Utilize green infrastructure or create greenspace?			
Generate renewable energy?			
Offer community engagement opportunities?			

Activities and Amounts Requested (choose one or more):

- Phase I ESA for \$_____
 BEA for \$_____
 Due Care Plan for \$_____
- Phase II ESA for \$_____
 Brownfield Plan for \$_____

Total amount being requested (please attach quotes from environmental consultant(s): \$_____)
**activity(ies) to be funded may not commence until the OCBRA has approved them*

Completed form and any attachments should be submitted via mail or email to:

Ottawa County Planning and Performance Improvement Department
 12220 Fillmore Street, Room 260
 West Olive, MI 49460
plan@miottawa.org

FOR OFFICIAL USE ONLY	
Approved Activity:	
Not to Exceed Amount:	
Approval Date:	
OCBRA Representative Signature:	

ⁱ From Public Act 381 of 1996 125.1652: (c) "Blighted" means property that meets any of the following criteria as determined by the governing body: (i) Has been declared a public nuisance in accordance with a local housing, building, plumbing, fire, or other related code or ordinance. (ii) Is an attractive nuisance to children because of physical condition, use, or occupancy. (iii) Is a fire hazard or is otherwise dangerous to the safety of persons or property. (iv) Has had the utilities, plumbing, heating, or sewerage permanently disconnected, destroyed, removed, or rendered ineffective so that the property is unfit for its intended use. (v) Is tax reverted property owned by a qualified local governmental unit, by a county, or by this state. The sale, lease, or transfer of tax reverted property by a qualified local governmental unit, county, or this state after the property's inclusion in a brownfield plan shall not result in the loss to the property of the status as blighted property for purposes of this act. (vi) Is property owned by or under the control of a land bank fast track authority, whether or not located within a qualified local governmental unit. Property included within a brownfield plan prior to the date it meets the requirements of this subdivision to be eligible property shall be considered to become eligible property as of the date the property is determined to have been or becomes qualified as, or is combined with, other eligible property. The sale, lease, or transfer of the property by a land bank fast track authority after the property's inclusion in a brownfield plan shall not result in the loss to the property of the status as blighted property for purposes of this act.

ⁱⁱ From Public Act 381 of 1996: (u) "Functionally obsolete" means that the property is unable to be used to adequately perform the function for which it was intended due to a substantial loss in value resulting from factors such as overcapacity, changes in technology, deficiencies or superadequacies in design, or other similar factors that affect the property itself or the property's relationship with other surrounding property.

Is there suspected or confirmed contamination on the project site or on an adjacent site?

As stated, levels above direct contact was reported for Arsenic, part 201, residential criteria. Chromium was also detected, but not a concern as there is no ground or surface water interaction. Please see attached findings on our environmental testing.

Private funds secured for a portion of the project costs? Please estimate the percentage.

The Township is embarking on a capital campaign to fundraise for the park. Construction has already begun. The Township has received \$25,000 from consumers energy to reforest the property.

Tax increment financing or other local/state incentives planned? Please provide details and timeline if known.

The Township is soliciting and has applied for grants from the Michigan Department of Natural Resources to fund elements of the Parks Master Plan. The name of the Park is "Community Park"

Compliance with local zoning and land-use plans and/or support from the local unit of government?

Yes.

Economic benefits - is it likely that the proposed project will (provide detail under comments):

Parks have significant economic benefits. They stabilize property values and contribute to the overall well being of our constituents. Jobs will be created with the construction and renovation of the space; including renovating a historic hanger, creating new trails, construction of Pickle Ball courts; all done with local contractors.

Proposed project will (provide detail under comments):

Utilize green infrastructure or create greenspace?

The majority of the site will be public green space.

Offer community engagement opportunities?

To settle on the proposed Site Master Plan, the Township went through a two year long public participation effort spanning four phases, 1500 comments and over 25 public meetings.

October 18, 2023
2230896

Mr. Howard Fink
Park Township
52 152nd Avenue
Holland, MI 49424

Re: Phase II Environmental Soil Sampling
Park Township Airport

Dear Mr. Fink:

The airport runway pavement was removed in preparation of redeveloping the site. Evidence of slag or other non-native fill materials were discovered beneath the pavement after it was removed. Park Township requested sampling and testing the soil to determine if there are any potential environmental issues with the soil.

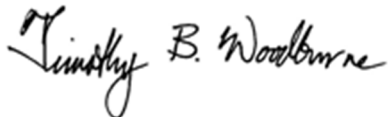
The initial estimate includes 6 samples of soil along the previous runways near the ground surface. Samples will be collected by hand methods and tested for Michigan 10 Metals - arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver and zinc. The Michigan 10 Metals are commonly used as indicator compounds for fill materials that may potentially contain slag.

Estimate fee for this work: \$4,000.

We will proceed based on your verbal approval. Thank you.

Sincerely,

Prein&Newhof



Timothy B. Woodburne, CPG

TBW/tbw

November 1, 2023
2230896

Mr. Howard Fink
Park Township
52 152nd Avenue
Holland, MI 49424

Re: Second Round of Phase II Environmental Soil Sampling
Park Township Airport

Dear Mr. Fink:

As previously discussed, the airport runway pavement was removed as part of site redevelopment. The soil beneath the pavement had non-native fill materials containing evidence of slag. This prompted the initial round of soil sampling along the runways. The initial results had arsenic in the soil sample "SS-3" at a concentration above its Part 201 Generic Direct Contact Criterion. As a result, Park Township requested additional soil characterization around "SS-3".

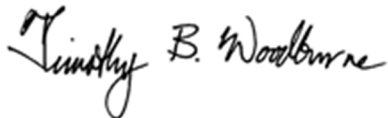
The second round of soil sampling is defined as 8 samples at locations around SS-3, with an additional 6 samples further away from the initial 8 samples. The initial 8 samples will be tested by the laboratory. The additional 6 samples will be placed on HOLD while testing the initial 8. After results of the initial 8 samples are evaluated, the additional 6 samples will be tested on an as needed basis.

Estimate fee for this work: \$6,000.

We will proceed based on your verbal approval. Thank you.

Sincerely,

Prein&Newhof



Timothy B. Woodburne, CPG

TBW/tbw

Log of Hand Auger Borings

PROJECT Park township Airport Phase II PROJECT NO. 2230896 DATE 11/10/23
 PROJECT LOCATION Holland, MI
 EQUIPMENT & OPERATOR Shovel
 SOILS TECHNICIAN Scott Cathey

BORING NO. <u>SS-1</u>		BORING LOCATION <u>NE end of SW to NE oriented runway</u>	
DEPTH		APPROX. GROUND ELEVATION <u>600 ft</u>	
FROM	TO	WATER FIRST ENCOUNTERED: AT <u>—</u> FT.	AT COMPLETION <u>—</u> FT.
<u>0.0</u>	<u>0.2</u>	<u>Topsoil</u>	
<u>0.2</u>	<u>1.0</u>	<u>Fill - Dark brown F-C sand with trace silt, little gravel, slag chunks (SW-Fill)</u>	
<u>1.0</u>	<u>1.5</u>	<u>Brown F-M sand with trace silt (sp)</u>	

BORING NO. <u>SS-2</u>		BORING LOCATION <u>Approximate center of SW to NE oriented runway</u>	
DEPTH		APPROX. GROUND ELEVATION <u>600 ft</u>	
FROM	TO	WATER FIRST ENCOUNTERED: AT <u>—</u> FT.	AT COMPLETION <u>—</u> FT.
<u>0.0</u>	<u>0.3</u>	<u>Topsoil</u>	
<u>0.3</u>	<u>1.0</u>	<u>Fill - Dark brown F-C sand with trace silt, little gravel, slag chunks (SW-Fill)</u>	
<u>1.0</u>	<u>1.5</u>	<u>Brown F-M sand with trace silt (sp)</u>	

SHEET NO. 1 OF 3

Log of Hand Auger Borings

PROJECT Park township Airport Phase II PROJECT NO. 2230896 DATE 11/10/23
 PROJECT LOCATION Holland, MI
 EQUIPMENT & OPERATOR Shovel
 SOILS TECHNICIAN Scott Cathey

BORING NO. <u>SS-3</u>		BORING LOCATION <u>SW End of SW to NE oriented runway</u>	
DEPTH		APPROX. GROUND ELEVATION <u>600 ft</u>	
FROM	TO	WATER FIRST ENCOUNTERED: AT <u>—</u> FT.	AT COMPLETION <u>—</u> FT.
<u>0.0</u>	<u>0.1</u>	<u>Topsoil</u>	
<u>0.1</u>	<u>1.0</u>	<u>Fill - Dark brown F-C sand with trace silt, little gravel, slag chunks (sw-Fill)</u>	
<u>1.0</u>	<u>1.5</u>	<u>Brown F-M sand with trace silt (sp)</u>	

BORING NO. <u>SS-3</u>		BORING LOCATION <u>NW end of NW to SE oriented runway</u>	
DEPTH		APPROX. GROUND ELEVATION <u>600 ft</u>	
FROM	TO	WATER FIRST ENCOUNTERED: AT <u>—</u> FT.	AT COMPLETION <u>—</u> FT.
<u>0.0</u>	<u>0.3</u>	<u>Topsoil</u>	
<u>0.3</u>	<u>1.0</u>	<u>Fill - Dark brown F-C sand with trace silt, little gravel, slag chunks (sw-Fill)</u>	
<u>1.0</u>	<u>1.5</u>	<u>Brown F-M sand with trace silt (sp)</u>	

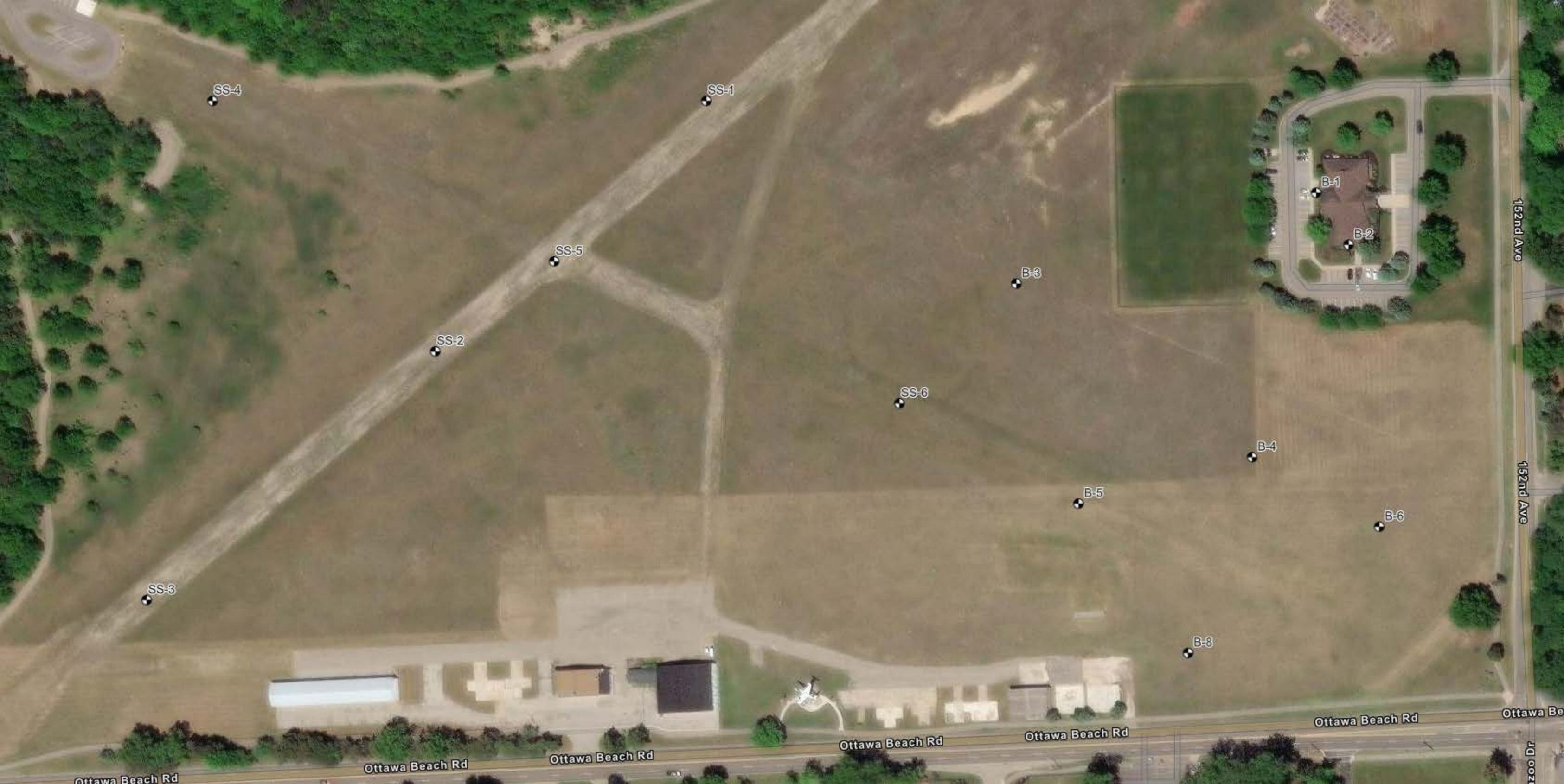
SHEET NO. 2 OF 3

Log of Hand Auger Borings

PROJECT Park township airport Phase II PROJECT NO. 2230896 DATE 11/10/23
 PROJECT LOCATION Holland, MI
 EQUIPMENT & OPERATOR Shovel
 SOILS TECHNICIAN Scott Cathey

BORING NO. <u>SS-5</u>		BORING LOCATION <u>Approximate center of NW to SE oriented runway</u>	
DEPTH		APPROX. GROUND ELEVATION <u>600 ft</u>	
FROM	TO	WATER FIRST ENCOUNTERED: AT <u> </u> FT.	AT COMPLETION <u> </u> FT.
<u>0.0</u>	<u>0.1</u>	<u>Topsoil</u>	
<u>0.1</u>	<u>1.0</u>	<u>Fill - Dark brown F-C sand with trace silt, little gravel, slag chunks (sw-Fill)</u>	
<u>1.0</u>	<u>1.5</u>	<u>Brown F-M sand with trace silt (sp)</u>	

BORING NO. <u>SS-6</u>		BORING LOCATION <u>SE section of NW to SE oriented runway</u>	
DEPTH		APPROX. GROUND ELEVATION <u>600 ft</u>	
FROM	TO	WATER FIRST ENCOUNTERED: AT <u> </u> FT.	AT COMPLETION <u> </u> FT.
<u>0.0</u>	<u>0.3</u>	<u>Topsoil</u>	
<u>0.3</u>	<u>1.0</u>	<u>Fill - Dark brown F-C sand with trace silt, little gravel, slag chunks (sw-Fill)</u>	
<u>1.0</u>	<u>1.5</u>	<u>Brown F-M sand with trace silt (sp)</u>	



SS-4

SS-1

SS-5

SS-2

SS-6

SS-3

B-3

B-1

B-2

B-4

B-5

B-6

B-8

Ottawa Beach Rd

Ottawa Beach Rd

Ottawa Beach Rd

Ottawa Beach Rd

Ottawa Beach Rd

Ottawa Beach Rd

Ottawa Beach Rd

152nd Ave

152nd Ave

152nd Ave

November 16, 2023

Prein & Newhof
3355 Evergreen Dr. NE
Grand Rapids, MI 49525

RE: Park Township Airport

Order No.: 2311738

Dear Mr. Tim Woodburne:

[Guide to Reading Lab Result](#)

Prein&Newhof Laboratory received 6 sample(s) on 11/10/2023 on your behalf. Your test results are provided in your Prein&Newhof Laboratory analytical report. Please carefully review your analytical report, noting the following.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Any analyte that exceeds the client provided permit level are noted on the report with an "*" in the Qual field. Quality control data is within laboratory defined or method specified acceptance limits except if noted.

When testing for PFHxS, PFOA, PFOS, MeFOSAA, and EtFOSAA results include both branched and linear isotopes. We extract a Method Blank and analyze it with the preparation batch. Method Blank analytes are within the Reporting Limit (RL).

To learn more about interpreting your Lab Report, follow the link above to view our "Guide to Reading Lab Results". If you have any concerns about your test results or need additional help, please call: 616-364-7600 or email me: sbylsma@preinnewhof.com.

We use EPA Approved Methods for all regulated parameters. EPA Lab #: MI000014

Prein&Newhof will be closed on Thursday, November 23 and Friday, November 24 for Thanksgiving. Bacteria samples will only be accepted until 2 pm on Wednesday, November 22

Thank you for trusting Prein&Newhof with your testing needs.

Thank you for your business.
Sincerely,



Steve Bylsma
Laboratory Manager

CLIENT:	Prein & Newhof	Collection Date:	11/10/2023 10:30:00 AM
Project:	Park Township Airport	Received Date:	11/10/2023 1:00:00 PM
Lab ID:	2311738-01	Matrix:	SOIL
Client Sample ID:	SS-1 (0.5-1.0)	Sampled By:	Scott C.

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY, TOTAL SOLID				SW 7471A	Analyst: DV	
Mercury	13.8	10.4		µg/Kg-dry	1	11/15/2023 11:25:00 AM
METALS, SOLID				SW 6020B	Analyst: AS	
Arsenic	2850	147		µg/Kg-dry	1	11/13/2023 5:09:19 PM
Barium	17400	147		µg/Kg-dry	1	11/13/2023 5:09:19 PM
Cadmium	66.5	29.4		µg/Kg-dry	1	11/13/2023 5:09:19 PM
Chromium	4920	147		µg/Kg-dry	1	11/13/2023 5:09:19 PM
Copper	2810	147		µg/Kg-dry	1	11/13/2023 5:09:19 PM
Lead	6510	147		µg/Kg-dry	1	11/13/2023 5:09:19 PM
Selenium	148	147		µg/Kg-dry	1	11/13/2023 5:09:19 PM
Silver	< 29.4	29.4		µg/Kg-dry	1	11/13/2023 5:09:19 PM
Zinc	18300	147		µg/Kg-dry	1	11/13/2023 5:09:19 PM
PERCENT MOISTURE				D2216	Analyst: CM	
Total Solids	93.9	0.0100		%	1	11/14/2023 9:46:02 AM

Qualifiers:	<	Not Detected at the Reporting Limit	H	Holding times for preparation or analysis exceeded
	MCL	Maximum Contaminant Level	PL	Permit Limit
	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

CLIENT:	Prein & Newhof	Collection Date:	11/10/2023 10:45:00 AM
Project:	Park Township Airport	Received Date:	11/10/2023 1:00:00 PM
Lab ID:	2311738-02	Matrix:	SOIL
Client Sample ID:	SS-2 (0.5-1.0)	Sampled By:	Scott C.

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY, TOTAL SOLID				SW 7471A		Analyst: DV
Mercury	13.6	10.5		µg/Kg-dry	1	11/15/2023 11:25:00 AM
METALS, SOLID				SW 6020B		Analyst: AS
Arsenic	3400	148		µg/Kg-dry	1	11/13/2023 5:14:54 PM
Barium	18700	148		µg/Kg-dry	1	11/13/2023 5:14:54 PM
Cadmium	96.4	29.6		µg/Kg-dry	1	11/13/2023 5:14:54 PM
Chromium	4960	148		µg/Kg-dry	1	11/13/2023 5:14:54 PM
Copper	4990	148		µg/Kg-dry	1	11/13/2023 5:14:54 PM
Lead	7180	148		µg/Kg-dry	1	11/13/2023 5:14:54 PM
Selenium	190	148		µg/Kg-dry	1	11/13/2023 5:14:54 PM
Silver	< 29.6	29.6		µg/Kg-dry	1	11/13/2023 5:14:54 PM
Zinc	21200	148		µg/Kg-dry	1	11/13/2023 5:14:54 PM
PERCENT MOISTURE				D2216		Analyst: CM
Total Solids	92.8	0.0100		%	1	11/14/2023 9:46:02 AM

Qualifiers:	<	Not Detected at the Reporting Limit	H	Holding times for preparation or analysis exceeded
	MCL	Maximum Contaminant Level	PL	Permit Limit
	RL	Reporting Limit	S	Spike Recovery outside accepted recovery limits

CLIENT:	Prein & Newhof	Collection Date:	11/10/2023 11:05:00 AM
Project:	Park Township Airport	Received Date:	11/10/2023 1:00:00 PM
Lab ID:	2311738-03	Matrix:	SOIL
Client Sample ID:	SS-3 (0.5-1.0)	Sampled By:	Scott C.

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY, TOTAL SOLID				SW 7471A	Analyst: DV	
Mercury	16.0	9.44		µg/Kg-dry	1	11/15/2023 11:25:00 AM
METALS, SOLID				SW 6020B	Analyst: AS	
Arsenic	8120	128		µg/Kg-dry	1	11/13/2023 5:26:11 PM
Barium	117000	128		µg/Kg-dry	1	11/13/2023 7:27:08 PM
Cadmium	103	25.7		µg/Kg-dry	1	11/13/2023 5:26:11 PM
Chromium	44000	128		µg/Kg-dry	1	11/13/2023 7:27:08 PM
Copper	36400	128		µg/Kg-dry	1	11/13/2023 7:27:08 PM
Lead	43800	128		µg/Kg-dry	1	11/13/2023 7:27:08 PM
Selenium	138	128		µg/Kg-dry	1	11/13/2023 5:26:11 PM
Silver	< 25.7	25.7		µg/Kg-dry	1	11/13/2023 5:26:11 PM
Zinc	59200	128		µg/Kg-dry	1	11/13/2023 7:27:08 PM
PERCENT MOISTURE				D2216	Analyst: CM	
Total Solids	94.3	0.0100		%	1	11/14/2023 9:46:02 AM

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

CLIENT:	Prein & Newhof	Collection Date:	11/10/2023 11:25:00 AM
Project:	Park Township Airport	Received Date:	11/10/2023 1:00:00 PM
Lab ID:	2311738-04	Matrix:	SOIL
Client Sample ID:	SS-4 (0.5-1.0)	Sampled By:	Scott C.

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY, TOTAL SOLID				SW 7471A	Analyst: DV	
Mercury	17.1	9.99		µg/Kg-dry	1	11/15/2023 11:25:00 AM
METALS, SOLID				SW 6020B	Analyst: AS	
Arsenic	3840	159		µg/Kg-dry	1	11/13/2023 5:31:57 PM
Barium	21200	159		µg/Kg-dry	1	11/13/2023 5:31:57 PM
Cadmium	142	31.7		µg/Kg-dry	1	11/13/2023 5:31:57 PM
Chromium	5130	159		µg/Kg-dry	1	11/13/2023 5:31:57 PM
Copper	8000	159		µg/Kg-dry	1	11/13/2023 5:31:57 PM
Lead	9950	159		µg/Kg-dry	1	11/13/2023 5:31:57 PM
Selenium	173	159		µg/Kg-dry	1	11/13/2023 5:31:57 PM
Silver	< 31.7	31.7		µg/Kg-dry	1	11/13/2023 5:31:57 PM
Zinc	24400	159		µg/Kg-dry	1	11/13/2023 5:31:57 PM
PERCENT MOISTURE				D2216	Analyst: CM	
Total Solids	90.2	0.0100		%	1	11/14/2023 9:46:02 AM

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

CLIENT:	Prein & Newhof	Collection Date:	11/10/2023 11:40:00 AM
Project:	Park Township Airport	Received Date:	11/10/2023 1:00:00 PM
Lab ID:	2311738-05	Matrix:	SOIL
Client Sample ID:	SS-5 (0.5-1.0)	Sampled By:	Scott C.

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY, TOTAL SOLID				SW 7471A		Analyst: DV
Mercury	< 9.68	9.68		µg/Kg-dry	1	11/15/2023 11:25:00 AM
METALS, SOLID				SW 6020B		Analyst: AS
Arsenic	2870	128		µg/Kg-dry	1	11/13/2023 5:43:13 PM
Barium	11600	128		µg/Kg-dry	1	11/13/2023 5:43:13 PM
Cadmium	51.2	25.7		µg/Kg-dry	1	11/13/2023 5:43:13 PM
Chromium	3720	128		µg/Kg-dry	1	11/13/2023 5:43:13 PM
Copper	3690	128		µg/Kg-dry	1	11/13/2023 5:43:13 PM
Lead	4470	128		µg/Kg-dry	1	11/13/2023 5:43:13 PM
Selenium	187	128		µg/Kg-dry	1	11/13/2023 5:43:13 PM
Silver	< 25.7	25.7		µg/Kg-dry	1	11/13/2023 5:43:13 PM
Zinc	14800	128		µg/Kg-dry	1	11/13/2023 5:43:13 PM
PERCENT MOISTURE				D2216		Analyst: CM
Total Solids	96.0	0.0100		%	1	11/14/2023 9:46:02 AM

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

CLIENT:	Prein & Newhof	Collection Date:	11/10/2023 11:55:00 AM
Project:	Park Township Airport	Received Date:	11/10/2023 1:00:00 PM
Lab ID:	2311738-06	Matrix:	SOIL
Client Sample ID:	SS-6 (0.5-1.0)	Sampled By:	Scott C.

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY, TOTAL SOLID				SW 7471A		Analyst: DV
Mercury	13.6	10.5		µg/Kg-dry	1	11/15/2023 11:25:00 AM
METALS, SOLID				SW 6020B		Analyst: AS
Arsenic	4690	143		µg/Kg-dry	1	11/13/2023 5:48:51 PM
Barium	58400	143		µg/Kg-dry	1	11/13/2023 7:32:41 PM
Cadmium	151	28.7		µg/Kg-dry	1	11/13/2023 5:48:51 PM
Chromium	21000	143		µg/Kg-dry	1	11/13/2023 5:48:51 PM
Copper	6500	143		µg/Kg-dry	1	11/13/2023 5:48:51 PM
Lead	13700	143		µg/Kg-dry	1	11/13/2023 5:48:51 PM
Selenium	290	143		µg/Kg-dry	1	11/13/2023 5:48:51 PM
Silver	< 28.7	28.7		µg/Kg-dry	1	11/13/2023 5:48:51 PM
Zinc	36100	143		µg/Kg-dry	1	11/13/2023 7:32:41 PM
PERCENT MOISTURE				D2216		Analyst: CM
Total Solids	91.1	0.0100		%	1	11/14/2023 9:46:02 AM

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

Prein & Newhof

Engineers ■ Surveyors ■ Environmental ■ Laboratory

3260 Evergreen Drive, NE
Grand Rapids, MI 49525
t. 616-364-7600
f. 616-364-4222

CHAIN OF CUSTODY

Wastewater W
Drinking Water D
Groundwater G
Soil S
Sludge L
Other X

Client: _____
Billing Address: _____
Phone Number: _____
Project Name: Port Township Airport
Project Number: 22308910
Email Results To: Tim Woodburne
Sampling Personnel: Scott Carney
No. 49287

LAB USE	Sample Information			Preservative						Analysis Requested												
	Lab Sample ID #	Date Collected	Time Collected	Sample Description and Location (e.g. MW-1)	MATRIX	None	H2SO4	HNO3	HCL	NaOH	Other											
	117384	11/10	1050	551 (0.5-1.0)	S	X																
	2		1045	552 (0.5-1.0)																		
	3		1105	553 (0.5-1.0)																		
	4		1105	554 (0.5-1.0)																		
	5		1140	555 (0.5-1.0)																		
	6		1135	556 (0.5-1.0)																		

Comments:



Relinquished By: (Signature) 	Date 11/16/23	Time 1300	Received By: (Signature)	Date	Time
Relinquished By: (Signature) 	Date 11/16/23	Time 1300	Data Package Relinquished By:	Date	Time

TABLE 1 - Summary of Soil Analytical Results

Sample Location	Soil Samples					
	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6
Sample Depth, ft. ¹	0.5-1'	0.5-1'	0.5-1'	0.5-1'	0.5-1'	0.5-1'
Collection Date	11-10-2023	11-10-2023	11-10-2023	11-10-2023	11-10-2023	11-10-2023
MI 10 METALS, total, µg/Kg						
Arsenic	2,850	3,400	8,120	3,840	2,870	4,690
Barium	17,400	18,700	117,000	21,200	11,600	58,400
Cadmium	66.5	96.4	103	142	51.2	151
Chromium (H)	4,920	4,960	44,000	5,130	3,720	21,000
Copper	2,810	4,990	36,400	8,000	3,690	6,500
Lead	6,510	7,180	43,800	9,950	4,470	13,700
Mercury	13.8	13.6	16.0	17.1	<9.68	13.6
Selenium	148	190	138	173	187	290
Silver	<29.4	<29.6	<25.7	<31.7	<25.7	<28.7
Zinc	18,300	21,200	59,200	24,400	14,800	36,100

Bold to indicated detected.

Highlighting to identify the following:

- Yellow concentrations exceed Part 201 GRCC.
- Green identifies the Part 201 Criterion exceeded.

Chemical Abstract Service Number	Statewide Default Background Levels (B)	Part 201 Generic Residential Cleanup Criteria, µg/Kg						
		Groundwater Protection		Indoor Air	Ambient Air		Contact	Csat
		Drinking Water Protection	Groundwater Surface Water Interface Protection (GSIP)	Soil Volatilization to Indoor Air Inhalation	Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Particulate Soil Inhalation Criteria	Direct Contact Criteria	Soil Saturation Concentration Screening Levels
7440382	5,800	4,600	4,600	NLV	NLV	720,000	7,600	NA
7440393	75,000	1,300,000	440,000 (G)	NLV	NLV	330,000,000	37,000,000	NA
7440439	1,200	6,000	3,000 (G,X)	NLV	NLV	1,700,000	550,000	NA
18540299	18,000 (total)	30,000	18,000 (total)	NLV	NLV	260,000	2,500,000	NA
7440508	32,000	5,800,000	75,000 (G)	NLV	NLV	130,000,000	20,000,000	NA
7439921	21,000	700,000	2,500,000 (G,X)	NLV	NLV	100,000,000	400,000	NA
Varies	130	1,700	50 (M)	48,000	52,000	20,000,000	160,000	NA
7782492	410	4,000	400	NLV	NLV	130,000,000	2,600,000	NA
7440224	1,000	4,500	100 (M)	NLV	NLV	6,700,000	2,500,000	NA
7440666	47,000	2,400,000	170,000 (G)	NLV	NLV	ID	170,000,000	NA

Footnotes

1. Depth is referenced to the ground surface.
- B - Background, as defined in R 299.5701(b), may be substituted if higher than the calculated cleanup criterion. Background levels used for arsenic's drinking water and GSIP criteria; and chromium's GSIP criterion.
- C - Value presented is a screening level based on the chemical-specific generic soil saturation concentration (Csat).
- G - GSIP criterion calculated using hardness of 150 mg/L for surface water.
- H - Valence-specific chromium data (Cr III and Cr VI) shall be compared to the corresponding valence-specific cleanup criteria. When only the total chromium is available, the total chromium concentration is compared to the Hexavalent Chromium cleanup criteria.
- M - Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.
- X - The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source.
- "ID" Insufficient Data to develop criterion.
- "MDL" - means the method detection limit for the analysis.
- "NA" - means Not Analyzed, or a criterion or value is not available or, in the case of background and CAS numbers, not applicable.
- "NLV" - hazardous substance is Not Likely to Volatilize under most conditions.

Reference:
 1. The Part 201 groundwater and soil cleanup criteria and screening levels, criteria footnotes and the toxicological and chemical-physical properties of the hazardous substances, obtained from Michigan Department of Environment, Great Lakes, and Energy -Remediation Division, as follows:
 Generic cleanup criteria (Table 1 - groundwater; Table 2 - soil), Effective October 12, 2023.



J:\GIS_Client\Ottawa-GDP\Park-GDT\wp_Proj\2230896_Phase II Airport.aprx - edempsey - 12/22/2023 10:35 AM



SCALE: 1" = 200

LEGEND

● Soil Sample Location

PARK TOWNSHIP
OTTAWA COUNTY, MICHIGAN

SOIL SAMPLE LOCATION PLAN

Prein&Newhof

2230896

December 06, 2023

Prein & Newhof
3355 Evergreen Dr. NE
Grand Rapids, MI 49525

RE: Park Township Airport

Order No.: 2311G29

Dear Mr. Tim Woodburne:

[Guide to Reading Lab Result](#)

Prein&Newhof Laboratory received 8 sample(s) on 11/30/2023 on your behalf. Your test results are provided in your Prein&Newhof Laboratory analytical report. Please carefully review your analytical report, noting the following.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative.

Any analyte that exceeds the client provided permit level are noted on the report with an "*" in the Qual field. Quality control data is within laboratory defined or method specified acceptance limits except if noted.

When testing for PFHxS, PFOA, PFOS, MeFOSAA, and EtFOSAA results include both branched and linear isotopes. We extract a Method Blank and analyze it with the preparation batch. Method Blank analytes are within the Reporting Limit (RL).

To learn more about interpreting your Lab Report, follow the link above to view our "Guide to Reading Lab Results". If you have any concerns about your test results or need additional help, please call: 616-364-7600 or email me: sbylsma@preinnewhof.com.

We use EPA Approved Methods for all regulated parameters. EPA Lab #: MI000014

Thank you for trusting Prein&Newhof with your testing needs.

Sincerely,



Steve Bylsma
Laboratory Manager

CLIENT: Prein & Newhof
Project: Park Township Airport

Lab Order: 2311G29

Lab ID: 2311G29-01 **Matrix:** SOIL **Collection Date:** 11/30/2023 10:50:00 AM
Client ID: SS-7 (1/2-1') **Sampler:** TW **Received Date:** 11/30/2023 2:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY, TOTAL SOLID				SW 7471A		Analyst: AB
Mercury	< 21.6	21.6		µg/Kg-dry	1	12/5/2023 2:28:20 PM
METALS, SOLID				SW 6020B		Analyst: AS
Arsenic	1140	150		µg/Kg-dry	1	12/1/2023 3:34:20 PM
Barium	17800	150		µg/Kg-dry	1	12/1/2023 3:34:20 PM
Cadmium	63.9	30.1		µg/Kg-dry	1	12/1/2023 3:34:20 PM
Chromium	3490	150		µg/Kg-dry	1	12/1/2023 3:34:20 PM
Copper	1470	150		µg/Kg-dry	1	12/1/2023 3:34:20 PM
Lead	3530	150		µg/Kg-dry	1	12/1/2023 3:34:20 PM
Selenium	< 150	150		µg/Kg-dry	1	12/1/2023 3:34:20 PM
Silver	< 30.1	30.1		µg/Kg-dry	1	12/1/2023 3:34:20 PM
Zinc	14600	150		µg/Kg-dry	1	12/1/2023 3:34:20 PM
PERCENT MOISTURE				D2216		Analyst: JS
Total Solids	91.3	0.0100		%	1	12/6/2023 8:16:54 AM

Qualifiers: < Not Detected at the Reporting Limit H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level PL Permit Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits

Original

CLIENT: Prein & Newhof
Project: Park Township Airport

Lab Order: 2311G29

Lab ID: 2311G29-02 **Matrix:** SOIL **Collection Date:** 11/30/2023 11:10:00 AM
Client ID: SS-8 (1/2-1') **Sampler:** TW **Received Date:** 11/30/2023 2:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY, TOTAL SOLID				SW 7471A		Analyst: AB
Mercury	< 19.2	19.2		µg/Kg-dry	1	12/5/2023 2:28:20 PM
METALS, SOLID				SW 6020B		Analyst: AS
Arsenic	994	139		µg/Kg-dry	1	12/1/2023 3:39:54 PM
Barium	16400	139		µg/Kg-dry	1	12/1/2023 3:39:54 PM
Cadmium	85.0	27.8		µg/Kg-dry	1	12/1/2023 3:39:54 PM
Chromium	2910	139		µg/Kg-dry	1	12/1/2023 3:39:54 PM
Copper	1160	139		µg/Kg-dry	1	12/1/2023 3:39:54 PM
Lead	4080	139		µg/Kg-dry	1	12/1/2023 3:39:54 PM
Selenium	< 139	139		µg/Kg-dry	1	12/1/2023 3:39:54 PM
Silver	< 27.8	27.8		µg/Kg-dry	1	12/1/2023 3:39:54 PM
Zinc	13100	139		µg/Kg-dry	1	12/1/2023 3:39:54 PM
PERCENT MOISTURE				D2216		Analyst: JS
Total Solids	92.4	0.0100		%	1	12/6/2023 8:16:54 AM

Qualifiers: < Not Detected at the Reporting Limit H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level PL Permit Limit
RL Reporting Limit S Spike Recovery outside accepted recovery limits

CLIENT: Prein & Newhof
Project: Park Township Airport

Lab Order: 2311G29

Lab ID: 2311G29-03 **Matrix:** SOIL **Collection Date:** 11/30/2023 11:15:00 AM
Client ID: SS-9 (1/2-1') **Sampler:** TW **Received Date:** 11/30/2023 2:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY, TOTAL SOLID				SW 7471A		Analyst: AB
Mercury	< 21.4	21.4		µg/Kg-dry	1	12/5/2023 2:28:20 PM
METALS, SOLID				SW 6020B		Analyst: AS
Arsenic	4100	116		µg/Kg-dry	1	12/1/2023 3:56:19 PM
Barium	15200	116		µg/Kg-dry	1	12/1/2023 3:56:19 PM
Cadmium	35.0	23.2		µg/Kg-dry	1	12/1/2023 3:56:19 PM
Chromium	4700	116		µg/Kg-dry	1	12/1/2023 3:56:19 PM
Copper	5060	116		µg/Kg-dry	1	12/1/2023 3:56:19 PM
Lead	4140	116		µg/Kg-dry	1	12/1/2023 3:56:19 PM
Selenium	< 116	116		µg/Kg-dry	1	12/1/2023 3:56:19 PM
Silver	< 23.2	23.2		µg/Kg-dry	1	12/1/2023 3:56:19 PM
Zinc	15100	116		µg/Kg-dry	1	12/1/2023 3:56:19 PM
PERCENT MOISTURE				D2216		Analyst: JS
Total Solids	94.4	0.0100		%	1	12/6/2023 8:16:54 AM

Qualifiers: < Not Detected at the Reporting Limit H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level PL Permit Limit
RL Reporting Limit S Spike Recovery outside accepted recovery limits

CLIENT: Prein & Newhof
Project: Park Township Airport

Lab Order: 2311G29

Lab ID: 2311G29-04 **Matrix:** SOIL **Collection Date:** 11/30/2023 11:20:00 AM
Client ID: SS-10 (1/2-1') **Sampler:** TW **Received Date:** 11/30/2023 2:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY, TOTAL SOLID				SW 7471A		Analyst: AB
Mercury	41.6	19.1		µg/Kg-dry	1	12/5/2023 2:28:20 PM
METALS, SOLID				SW 6020B		Analyst: AS
Arsenic	3390	99.7		µg/Kg-dry	1	12/1/2023 4:07:56 PM
Barium	65500	99.7		µg/Kg-dry	1	12/1/2023 5:30:47 PM
Cadmium	194	19.9		µg/Kg-dry	1	12/1/2023 4:07:56 PM
Chromium	25400	99.7		µg/Kg-dry	1	12/1/2023 5:30:47 PM
Copper	12000	99.7		µg/Kg-dry	1	12/1/2023 4:07:56 PM
Lead	29300	99.7		µg/Kg-dry	1	12/1/2023 5:30:47 PM
Selenium	247	99.7		µg/Kg-dry	1	12/1/2023 4:07:56 PM
Silver	< 19.9	19.9		µg/Kg-dry	1	12/1/2023 4:07:56 PM
Zinc	98700	99.7		µg/Kg-dry	1	12/1/2023 5:30:47 PM
PERCENT MOISTURE				D2216		Analyst: JS
Total Solids	90.4	0.0100		%	1	12/6/2023 8:16:54 AM

Qualifiers: < Not Detected at the Reporting Limit H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level PL Permit Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits

Original

CLIENT: Prein & Newhof
Project: Park Township Airport

Lab Order: 2311G29

Lab ID: 2311G29-05 **Matrix:** SOIL **Collection Date:** 11/30/2023 11:00:00 AM
Client ID: SS-11 (1/2-1') **Sampler:** TW **Received Date:** 11/30/2023 2:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY, TOTAL SOLID				SW 7471A		Analyst: AB
Mercury	< 15.0	15.0		µg/Kg-dry	1	12/5/2023 2:28:20 PM
METALS, SOLID				SW 6020B		Analyst: AS
Arsenic	765	96.7		µg/Kg-dry	1	12/1/2023 4:13:43 PM
Barium	12900	96.7		µg/Kg-dry	1	12/1/2023 4:13:43 PM
Cadmium	42.6	19.3		µg/Kg-dry	1	12/1/2023 4:13:43 PM
Chromium	2800	96.7		µg/Kg-dry	1	12/1/2023 4:13:43 PM
Copper	1050	96.7		µg/Kg-dry	1	12/1/2023 4:13:43 PM
Lead	2510	96.7		µg/Kg-dry	1	12/1/2023 4:13:43 PM
Selenium	190	96.7		µg/Kg-dry	1	12/1/2023 4:13:43 PM
Silver	< 19.3	19.3		µg/Kg-dry	1	12/1/2023 4:13:43 PM
Zinc	12200	96.7		µg/Kg-dry	1	12/1/2023 4:13:43 PM
PERCENT MOISTURE				D2216		Analyst: JS
Total Solids	92.8	0.0100		%	1	12/6/2023 8:16:54 AM

Qualifiers: < Not Detected at the Reporting Limit H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level PL Permit Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits

Original

CLIENT: Prein & Newhof
Project: Park Township Airport

Lab Order: 2311G29

Lab ID: 2311G29-06 **Matrix:** SOIL **Collection Date:** 11/30/2023 10:40:00 AM
Client ID: SS-12 (1/2-1') **Sampler:** TW **Received Date:** 11/30/2023 2:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY, TOTAL SOLID				SW 7471A		Analyst: AB
Mercury	32.2	21.9		µg/Kg-dry	1	12/5/2023 2:28:20 PM
METALS, SOLID				SW 6020B		Analyst: AS
Arsenic	912	151		µg/Kg-dry	1	12/1/2023 4:19:17 PM
Barium	7690	151		µg/Kg-dry	1	12/1/2023 4:19:17 PM
Cadmium	45.9	30.3		µg/Kg-dry	1	12/1/2023 4:19:17 PM
Chromium	3680	151		µg/Kg-dry	1	12/1/2023 4:19:17 PM
Copper	1030	151		µg/Kg-dry	1	12/1/2023 4:19:17 PM
Lead	2690	151		µg/Kg-dry	1	12/1/2023 4:19:17 PM
Selenium	346	151		µg/Kg-dry	1	12/1/2023 4:19:17 PM
Silver	< 30.3	30.3		µg/Kg-dry	1	12/1/2023 4:19:17 PM
Zinc	10300	151		µg/Kg-dry	1	12/1/2023 4:19:17 PM
PERCENT MOISTURE				D2216		Analyst: JS
Total Solids	87.9	0.0100		%	1	12/6/2023 8:16:54 AM

Qualifiers: < Not Detected at the Reporting Limit H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level PL Permit Limit
RL Reporting Limit S Spike Recovery outside accepted recovery limits

Original

CLIENT: Prein & Newhof
Project: Park Township Airport

Lab Order: 2311G29

Lab ID: 2311G29-07 **Matrix:** SOIL **Collection Date:** 11/30/2023 10:45:00 AM
Client ID: SS-13 (1/2-1') **Sampler:** TW **Received Date:** 11/30/2023 2:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY, TOTAL SOLID				SW 7471A		Analyst: AB
Mercury	< 14.1	14.1		µg/Kg-dry	1	12/5/2023 2:28:20 PM
METALS, SOLID				SW 6020B		Analyst: AS
Arsenic	2730	93.4		µg/Kg-dry	1	12/1/2023 4:30:27 PM
Barium	10600	93.4		µg/Kg-dry	1	12/1/2023 4:30:27 PM
Cadmium	28.5	18.7		µg/Kg-dry	1	12/1/2023 4:30:27 PM
Chromium	6080	93.4		µg/Kg-dry	1	12/1/2023 4:30:27 PM
Copper	5940	93.4		µg/Kg-dry	1	12/1/2023 4:30:27 PM
Lead	3630	93.4		µg/Kg-dry	1	12/1/2023 4:30:27 PM
Selenium	146	93.4		µg/Kg-dry	1	12/1/2023 4:30:27 PM
Silver	< 18.7	18.7		µg/Kg-dry	1	12/1/2023 4:30:27 PM
Zinc	12600	93.4		µg/Kg-dry	1	12/1/2023 4:30:27 PM
PERCENT MOISTURE				D2216		Analyst: JS
Total Solids	96.4	0.0100		%	1	12/6/2023 8:16:54 AM

Qualifiers: < Not Detected at the Reporting Limit H Holding times for preparation or analysis exceeded
MCL Maximum Contaminant Level PL Permit Limit
RL Reporting Limit S Spike Recovery outside accepted recovery limits

Original

Page 8 of 10

CLIENT: Prein & Newhof
Project: Park Township Airport

Lab Order: 2311G29

Lab ID: 2311G29-08 **Matrix:** SOIL **Collection Date:** 11/30/2023 10:30:00 AM
Client ID: SS-14 (1/2-1') **Sampler:** TW **Received Date:** 11/30/2023 2:10:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MERCURY, TOTAL SOLID				SW 7471A		Analyst: AB
Mercury	17.2	16.9		µg/Kg-dry	1	12/5/2023 2:28:20 PM
METALS, SOLID				SW 6020B		Analyst: AS
Arsenic	1090	112		µg/Kg-dry	1	12/1/2023 4:36:14 PM
Barium	18600	112		µg/Kg-dry	1	12/1/2023 4:36:14 PM
Cadmium	68.4	22.5		µg/Kg-dry	1	12/1/2023 4:36:14 PM
Chromium	3400	112		µg/Kg-dry	1	12/1/2023 4:36:14 PM
Copper	1260	112		µg/Kg-dry	1	12/1/2023 4:36:14 PM
Lead	3400	112		µg/Kg-dry	1	12/1/2023 4:36:14 PM
Selenium	< 112	112		µg/Kg-dry	1	12/1/2023 4:36:14 PM
Silver	< 22.5	22.5		µg/Kg-dry	1	12/1/2023 4:36:14 PM
Zinc	15100	112		µg/Kg-dry	1	12/1/2023 4:36:14 PM
PERCENT MOISTURE				D2216		Analyst: JS
Total Solids	92.8	0.0100		%	1	12/6/2023 8:16:54 AM

Qualifiers: < Not Detected at the Reporting Limit H Holding times for preparation or analysis exceeded
 MCL Maximum Contaminant Level PL Permit Limit
 RL Reporting Limit S Spike Recovery outside accepted recovery limits

Prein & Newhof

Engineers ■ Surveyors ■ Environmental ■ Laboratory

3260 Evergreen Drive, NE
Grand Rapids, MI 49525
t: 616-364-7600
f: 616-364-4222

Wastewater W
Drinking Water D
Groundwater G
Soil S
Sludge L
Other X

Client: Park Township
Billing Address: _____
Phone Number: _____
Project Name: Park Township Airport
Project Number: 2230894
Email Results To: Tim Wootburne
Sampling Personnel: TW

No. 49627

CHAIN OF CUSTODY

LAB USE	Sample Information			MATRIX	Preservative					Analysis Requested																												
	Date Collected	Time Collected	Sample Description and Location (e.g. MW-1)		None	H2SO4	HNO3	HCL	NaOH	Other																												
11g 29-1	11/30/2023	10:56	SS-7 (1/2-1')	S 1						X																												
2		11:10	SS-8 (1/2-1')	S 1						X																												
3		11:15	SS-9 (1/2-1')	S 1						X																												
4		11:20	SS-10 (1/2-1')	S 1						X																												
5		11:00	SS-11 (1/2-1')	S 1						X																												
6		10:48	SS-12 (1/2-1')	S 1						X																												
7		10:45	SS-13 (1/2-1')	S 1						X																												
8		10:30	SS-14 (1/2-1')	S 1						X																												

Comments:

Relinquished By: (Signature) <i>B. Wootburne</i>	Date 11/30/2023	Time 2:10 PM	Received By: (Signature)	Date	Time
Relinquished By: (Signature)	Date	Time	Received By: (Signature)	Date	Time
Received for Laboratory By: <i>S. Diwan</i>	Date 11/30/23	Time 14:10	Data Package Relinquished By:	Date	Time

TABLE 1 - Summary of Soil Analytical Results

Sample Location	Soil Samples						Soil Samples - Second Round							
	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9	SS-10	SS-11	SS-12	SS-13	SS-14
Sample Depth, ft. ¹	0.5-1'	0.5-1'	0.5-1'	0.5-1'	0.5-1'	0.5-1'	0.5-1'	0.5-1'	0.5-1'	0.5-1'	0.5-1'	0.5-1'	0.5-1'	0.5-1'
Collection Date	11-10-2023	11-10-2023	11-10-2023	11-10-2023	11-10-2023	11-10-2023	11-30-2023	11-30-2023	11-30-2023	11-30-2023	11-30-2023	11-30-2023	11-30-2023	11-30-2023
MI 10 METALS, total, µg/Kg														
Arsenic	2,850	3,400	8,120	3,840	2,870	4,690	1,140	994	4,100	3,390	765	912	2,730	1,090
Barium	17,400	18,700	117,000	21,200	11,600	58,400	17,800	16,400	15,200	65,500	12,900	7,690	10,600	18,600
Cadmium	66.5	96.4	103	142	51.2	151	63.9	85.0	35.0	194	42.6	45.9	28.5	68.4
Chromium (H)	4,920	4,960	44,000	5,130	3,720	21,000	3,490	2,910	4,700	25,400	2,800	3,680	6,080	3,400
Copper	2,810	4,990	36,400	8,000	3,690	6,500	1,470	1,160	5,060	12,000	1,050	1,030	5,940	1,260
Lead	6,510	7,180	43,800	9,950	4,470	13,700	3,530	4,080	4,140	29,300	2,510	2,690	3,630	3,400
Mercury	13.8	13.6	16.0	17.1	<9.68	13.6	<21.6	<19.2	<21.4	41.6	<15.0	32.2	<14.1	17.2
Selenium	148	190	138	173	187	290	<150	<139	<116	247	190	346	146	<112
Silver	<29.4	<29.6	<25.7	<31.7	<25.7	<28.7	<30.1	<27.8	<23.2	<19.9	<19.3	<30.3	<18.7	<22.5
Zinc	18,300	21,200	59,200	24,400	14,800	36,100	14,600	13,100	15,100	98,700	12,200	10,300	12,600	15,100

Bold to indicated detected.

Yellow concentrations exceed Part 201 GRCC.

		Part 201 Generic Residential Cleanup Criteria, µg/Kg							
Chemical Abstract Service Number	Statewide Default Background Levels (B)	Groundwater Protection		Indoor Air	Ambient Air		Contact	Csat	
		Drinking Water Protection	Groundwater Surface Water Interface Protection (GSIP)	Soil Volatilization to Indoor Air Inhalation	Infinite Source Volatile Soil Inhalation Criteria (VSIC)	Particulate Soil Inhalation Criteria	Direct Contact Criteria	Soil Saturation Concentration Screening Levels	
Arsenic	7440382	5,800	4,600	4,600	NLV	NLV	720,000	7,600	NA
Barium	7440393	75,000	1,300,000	440,000 (G)	NLV	NLV	330,000,000	37,000,000	NA
Cadmium	7440439	1,200	6,000	3,000 (G,X)	NLV	NLV	1,700,000	550,000	NA
Chromium (H)	18540299	18,000 (total)	30,000	18,000 (total)	NLV	NLV	260,000	2,500,000	NA
Copper	7440508	32,000	5,800,000	75,000 (G)	NLV	NLV	130,000,000	20,000,000	NA
Lead	7439921	21,000	700,000	2,500,000 (G,X)	NLV	NLV	100,000,000	400,000	NA
Mercury	Varies	130	1,700	50 (M)	48,000	52,000	20,000,000	160,000	NA
Selenium	7782492	410	4,000	400	NLV	NLV	130,000,000	2,600,000	NA
Silver	7440224	1,000	4,500	100 (M)	NLV	NLV	6,700,000	2,500,000	NA
Zinc	7440666	47,000	2,400,000	170,000 (G)	NLV	NLV	ID	170,000,000	NA

Green identifies the Part 201 Criterion exceeded.

Reference:

1. The Part 201 groundwater and soil cleanup criteria and screening levels, criteria footnotes and the toxicological and chemical-physical properties of the hazardous substances, obtained from Michigan Department of Environment, Great Lakes, and Energy -Remediation Division, as follows:
 Generic cleanup criteria (Table 1 - groundwater; Table 2 - soil), Effective October 12, 2023.

Footnotes 1. Depth is referenced to the ground surface.
 B - Background, as defined in R 299.5701(b), may be substituted if higher than the calculated cleanup criterion. Background levels used for arsenic's drinking water and GSIP criteria; and chromium's GSIP criterion.
 C - Value presented is a screening level based on the chemical-specific generic soil saturation concentration (Csat).
 G - GSIP criterion calculated using hardness of 150 mg/L for surface water.
 H - Valence-specific chromium (Cr III and Cr VI) shall be compared to the corresponding valence cleanup criteria. When only the total chromium is available, the total chromium concentration is compared to the Cr VI cleanup criteria.
 M - Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.
 X - The GSI criterion shown in the generic cleanup criteria tables is not protective for surface water that is used as a drinking water source.
 "ID" Insufficient Data to develop criterion.
 "MDL" - means the method detection limit for the analysis.
 "NA" - means Not Analyzed, or not available or, in the case of background and CAS numbers, not applicable.
 "NLV" - hazardous substance is Not Likely to Volatilize under most conditions.



Josh Brugger
Chairperson

Rebecca Hopp
Vice-Chairperson

Ottawa County[®]

Brownfield Redevelopment Authority

BIP Committee Meeting – via virtual meeting

Date: 01.02.2024

Present: Becky Huttenga, Kirk Perschbacher, Rebecca Hopp, Garry Post

Guests: Howard Fink, Prien & Newhoff staff member

Project: Park Twp Airport

Request: \$10,000 – Ph II/Due Care – slag identified on site showed arsenic and chromium levels in excess of acceptable limits.

Project merits:

- Supports a local unit
- Supports greenspace restoration
- Applicant proactively tested to protect public health

Project faults:

- Request is for testing outside of ordinary Ph II environmental site assessment report
- Request is for reimbursement for testing performed prior to application
- Project does not increase tax base

Committee recommendation:

- \$5,000 in financial reimbursement of costs for topsoil for future capping of areas where slag exceeded acceptable arsenic concentrations, using Prien & Newhoff recommendation for topsoil and annual monitoring by Park Twp staff

Respectfully submitted by:

Becky Huttenga
Economic Development Coordinator, Ottawa County